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COMMANDER JOINT EXPEDITIONARY FORCE
(COMMANDER AMPHIBIOUS FORCES, U. S. PACIFIC FLEET)

REPORT OF CAPTURE OF THE MARIANAS

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Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944

From: Commander Joint Expeditionary Force, MARIANAS Operation (Commander Amphibious Forces, Pacific Fleet).
To: Commander in Chief, U. S. Pacific Fleet.
Via: Commander Central Pacific Task Forces (Commander FIFTH Fleet).

Subject: Report of Amphibious Operations for the capture of the MARIANAS ISLANDS (FORAGER Operation).

Enclosures:
(A) Narrative of the Operation.
(B) Intelligence Report.
(C) Operation of Control, Beach, and Shore Parties.
(D) Comments on Operation of Amphibious Vessels and Vehicles.
(E) Operation of Pontoon Barges and Causeways.
(F) Naval and Air BBombardments.
(G) Underwater Demolition Teams.
(H) Protective Smoke Cover.
(I) Copy of Report of Commander Support Aircraft.
(J) Communications.
(K) Medical Report, including Daily Lists of Casualties.
(L) Casualties to Ships.
(M) Logistics
(N) Ship Loadings.
(O) Important Recommendations.

(A) ORGANIZATION OF TASK FORCE 51

1. This is the report concerning the major amphibious features of the operations of Task Force 51 (Joint Expeditionary Force) for the capture of the MARIANAS. The enclosures comprise a narrative of the operation, and a series of comments on certain technical matters which may be of interest in connection with future operations. The report includes in some detail the operations of Task Force 52 during the Occupation Phase of SAIPAN, and in less detail the operations of other task forces for the capture of TINIAN and GUAM. The reports of Commanders of Task Forces 52 (No. 2), 53, and 56, and of various task group and unit and ship commanders may be expected to set forth details of the operations of their forces. As these reports are not available at the time of submission of this report, it will not

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be possible herein to compose possible discrepancies.

2. Units were made available to Commander Task Force 51 for planning and training on various dates beginning in April, 1944. The organization as a whole was activated on May 24, 1944. The Force was dissolved on August 15, 1944, after the Occupation Phase of the MARIANAS had been completed. Command was then turned over to Commander Forward Areas. Task Force 52 (No. 1) was in existence from May 24 to July 15; Task Force 52 (No. 2) was in existence from July 15 to August 12, and Task Force 53 from May 24 to August 15.

3. Task Force 51 was composed of the following major subdivisions:

(a) Expeditionary Troops (Task Force 56), Lieutenant General Holland M. SMITH, USMC, included all assault troops, plus garrison troops assigned to the various Island Commands which arrived at destinations during the Occupation Phase.

(b) Northern Attack Force (Task Force 52), charged with the capture of SAIPAN and TINIAN, was commanded by Vice Admiral R. K. TURNER, U.S. Navy, from the time of its activation on May 24 until after the capture of SAIPAN. During this period, Rear Admiral H.W. HILL, U.S. Navy, was second in command, and directly in command of the Western Landing Group (Task Group 52.2), comprising the Northern Troops and Landing Force, the Assault Transport Groups, LST Flotillas, Control Group, Gunboat Support Group, Beach Demolition Group, Beachmaster Group, LCT Flotilla, and the Pontoon Barge Unit. The Western Landing Group executed the main landings on SAIPAN. On July 15, the then existing Task Force 52 was dissolved, and a new Task Force 52 (No. 2) was organized under Rear Admiral HILL for the capture of TINIAN. Vice Admiral TURNER thereafter remained as Senior Officer Present Afloat, SAIPAN, until SAIPAN and TINIAN passed to control of Commander Forward Area on August 12. Task Force 52, on August 12, was disbanded, the capture of TINIAN having been completed.

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(c) Southern Attack Force (Task Force 53), charged with the capture of GUAM, was commanded by Rear Admiral R. L. CONOLLY, U.S. Navy, from the time of its activation on May 24, 1944, until August 10, after the capture of GUAM had been completed. On that date, because his services were required in another operation, Rear Admiral CONOLLY relinquished command of Task Force 53 to Rear Admiral L. F. REIFSNIDER, U.S. Navy, who previously had been acting as second in command of the Force, and directly in command of the GUAM Southern Landing Group (Task Group 53.2). Task Force 53 was dissolved on August 15, 1944.

(d) Joint Expeditionary Force Reserve (Task Group 51.1), charged with transporting the area reserve for the operation, was commanded by Rear Admiral W.H.P. BLANDY, U.S. Navy, from the time of its activation on May 24, 1944, until it was dissolved on July 5. On that date, the Group was dissolved, and Rear Admiral BLANDY detached to another operation. All of the troops attached to Task Group 51.1 were landed on SAIPAN by June 20.

(e) General Reserve (Task Group 51.8) originally did not have any ships assigned, as none were available. The troops consisted of the 77th Division, alerted for embarkation in HAWAII on Dog plus TWENTY. When it was decided to employ this division, it was embarked in two echelons. One echelon of one division of transports and attached units under Captain J. B. HEFFERNAN, U.S. Navy, embarked the 305th Regimental Combat Team; and one echelon of two divisions of transports and attached units under Captain H.B. KNOWLES, U.S. Navy, embarked the remainder of the 77th Division. The first echelon sailed from PEARL July 2, and the second echelon July 9. Upon arrival at ENIWETOK, both echelons were assigned to Task Force 53, and participated in the capture of GUAM.

(f) Task Groups 51.2, 51.3, 51.4, 51.5, 51.6, and 51.7 comprised first echelons of garrison forces for SAIPAN and GUAM. These were embarked and operated under the direction of Commander Task Force 51. Succeeding garrison echelons, em-

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barked by other authorities, assembled at ENIWETOK, and proceeded thence to the objectives as called for, and on arrival operated under the Senior Officer Present Afloat, but were not attached to Task Force 51.

4. The following table gives a summary, by types, of vessels attached to Task Force 51 during this operation. The list does not include garrison force shipping of second and succeeding echelons, nor units from other forces which operated temporarily under the Senior Officers Present Afloat, SAIPAN and GUAM.

Summary of Vessels of Joint Expeditionary Force

2 AGC	1 APH	10 DMS	1 AKN
7 OBB	13 AKA	10 AM	4 AN
11 CVE	17 AP	16 SC	1 ARB
6 CA	10 AK	24 YMS	2 ARL
5 CL	9 XAP	10 PC	2 ARS
86 DD	12 XAK	10 PC(S)	91 LST
16 DE	13 APD	6 AT	50 LCI
43 APA	8 LSD	2 AVD	1 APc
			36 LCT

TOTAL - 535

5. The commanders of the major elements of the assault troops and garrison forces are shown in the following list:

(a) Commanding General, Expeditionary Troops - Lieutenant General Holland M. SMITH, USMC;

(b) Commanding General, Northern Troops and Landing Force - Lieutenant General Holland M. SMITH, USMC. (Relieved as Commanding General, Northern Troops and Landing Force, July 12).

(c) Commanding General, SECOND Marine Division - Major General T.E. WATSON, USMC, attached to Northern Troops and Landing Force;

(d) Commanding General, FOURTH Marine Division - Major General Harry SCHMIDT, USMC, attached to Northern Troops and Landing Force. (Relieved as Commanding General, FOURTH Marine Division, July 12, and assumed duty as Commanding General, Northern Troops and Landing Force, same date). Major General Clifton B. CATES, USMC, assumed command of FOURTH Marine Division July 12;

(e) Commanding General, 27th Infantry Division - Major General Ralph C. SMITH, USA. (Detached from command June 24). Major General Sanderford JARMON, USA., assumed temporary command June 24, and was detached June 28. Major General George W. GRINER, USA., assumed command June 28;

(f) Commanding General, Southern Troops and Landing Force - Major General Roy S. GEIGER, USMC;

(g) Commanding General, THIRD Marine Division - Major General Allen H. TURNAGE, USMC;

(h) Commanding General, 77th Infantry Division - Major General A. D. BRUCE, USA;

(i) Commanding General, FIRST Provisional Marine Brigade - Brigadier General Lemuel C. SHEPHERD, Jr., USMC;

(j) Commanding General, SAIPAN Garrison Force - Major General Sanderford JARMAN, USA;

(k) Commanding General, TINIAN Garrison Force - Brigadier General (later Major General) James L. UNDERHILL, USMC;

(l) Commanding General, GUAM Garrison Force - Major General Henry L. LARSEN, USMC.

6. A summary of approximate numbers and categories of troops and shore based naval personnel employed is given in

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the following table:

Summary of Expeditionary Troops Employed During Occupation Phases

	Assault Troops		Garrison Troops (1)			
	Army	Marine	Army	Marines	Navy	Total
Northern Attack Force	22646	48388				71034
Southern Attack Force	19245	37292				56537
GUAM Garrison Force			86	6631	2533	9250
SAIPAN Garrison Force			20346	1802	1468	23616
TINIAN Garrison Force			15	2527	2693	5235
Net Total Troops Employed	41891	85680	20447	10960	6694	165,672

NOTE: Figures include approximate numbers of personnel landed to August 15 from assault and garrison shipping, plus attached Naval Local Defense Forces. The list includes garrison force units initially attached to the assault forces, plus LCT's and boat pools, but does not include vessels of the Patrol and Escort Forces.

(B) STRATEGIC FEATURES OF THE MARIANAS OPERATION

7. The chief strategic features of the *operation, as affecting the Joint* Expeditionary Force, were as follows:

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(a) Destruction of enemy aircraft and neutralization of air bases in the CAROLINES, PALAUS, YAP, NEW GUINEA, and HALMAHERA by bombardment by airplanes of the Central Pacific, South Pacific, and Southwest Pacific Areas;

(b) Observation and attack on enemy surface forces to the northwest, west, southwest, and south of the MARIANAS by submarines of the Central and Southwest Pacific Areas;

(c) Destruction of enemy aircraft and neutralization of enemy airfields in the MARIANAS, beginning Dog minus FOUR Day, with occasional raids against CHICHI JIMA, IWO JIMA, YAP, and PALAU, by the Fast Carrier Task Forces;

(d) Covering operations to the westward against enemy surface vessels, and ship-borne and shore-based aviation, by the Fast Carrier Task Forces (including battleships);

(e) Softening up of enemy defenses, and destruction of fortifications on SAIPAN, TINIAN, and GUAM, beginning Dog minus TWO Day, by aircraft bombing and ship bombardment by the Fast Carrier Task Forces, and by CVE's and gunfire support ships of the Joint Expeditionary Force;

(f) Scouting and anti-submarine patrols by large seaplanes based on SAIPAN;

(g) Establishment on SAIPAN of shore-based aviation and its use for troop support and protective missions;

(h) The use of ENIWETOK as a re-supply port for the forces further forward, and as a "port of call" for garrison and service forces which could not at once be received at destination;

(i) The capture in succession, by the Northern Landing Force, of SAIPAN and TINIAN; and the capture of GUAM by the Southern Landing Force as soon as the SAIPAN situation permitted. While the original plan had been to use the Joint

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Expeditionary Force Reserve as a reserve for both SAIPAN and GUAM, and to capture these two islands simultaneously, it early became apparent that all of the reserve was required on SAIPAN; and that the strength of the Southern Landing Force alone was inadequate to ensure success on GUAM. It therefore became necessary to delay the GUAM attack in order to hold part of its troops in reserve for SAIPAN for a time; and also to give time to send transports back to HAWAII to bring forward the General Reserve to reenforce the Southern Landing Force. As a result, the SAIPAN capture was carried on alone; and the later TINIAN and GUAM captures were concurrent.

(C) MOVEMENT OF TASK FORCE 51 TO OBJECTIVES

8. Dog Day for the SAIPAN Assault was set at June 15, Zone minus TEN Time. Task Force 52, the Northern Attack Force, moved on schedule, except for minor changes, and without incident from the HAWAIIAN Area to ROI-NAMUR and ENIWETOK for logistics, and thence to SAIPAN. The Joint Expeditionary Force Reserve also moved on schedule and was committed early in the SAIPAN assault. A considerable number of vessels joined in the MARSHALLS. Some of the gunfire support ships and CVE's of this Force were attached to Task Force 53 for the capture of GUAM.

9. William Day for the GUAM operation was of necessity deferred until July 21 because of the commitment of the Joint Expeditionary Force Reserve and the employment of Task Force 53 as a floating reserve for SAIPAN. Task Force 53, the Southern Attack Force, moved initially from GUADALCANAL to logistics ports in the MARSHALLS on schedule, and departed for the GUAM Operation according to plan. A considerable number of vessels joined in the MARSHALLS. It was found necessary, however, to keep most of this Force to the eastward of SAIPAN for nearly two weeks, as floating reserve for SAIPAN, and then to return it to ENIWETOK for re-supply, and to await the 77th Division. Some of the gunfire support ships, CVE's, and minesweepers of this Force were attached to Task Force 52 during the early stages of the capture of SAIPAN.

10. During the initial movement of Task Force 51 from HAWAIIAN and SOUTH PACIFIC ports to the MARSHALLS, and during the

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subsequent movement to the objective, operational casualties were remarkably few, and but one ship was lost to enemy action: LCI 468 was sunk by a torpedo released from a Japanese torpedo plane.

11. After completion of the program of final rehearsals, the movements of the various forces, groups, and units of the Joint Expeditionary Force were carried out in accordance with the table set forth below:

TABLE OF MOVEMENTS OF JOINT EXPEDITIONARY FORCE

Task Force 51, less Task Force 53 (Dates Western, unless otherwise indicated)

MAY

25 TRACTOR GROUP ONE (Task Group 52.18) departed HAWAIIAN Area via Route RACETRACK; arrived ENIWETOK for logistics 1100 (minus 11) June 7; small craft fueling enroute from LST's.

25 TRACTOR GROUP TWO (Task Group 52.19) departed HAWAIIAN Area via Route RACETRACK, 10 miles behind Task Group 52.18; arrived ENIWETOK for logistics 1400 (minus 11) June 7; small craft fueling enroute from LST's.

28 DEFENSE GROUP ONE (Task Group 51.2) departed HAWAIIAN Area via Route PARKWAY; arrived ROI 1700 (minus 11) June 8 for logistics; small craft fueling enroute from LST's.

29 ATTACK GROUP ONE (Task Group 52.15)
MINESWEEPING UNIT ONE (Task Unit 51.17.1)
ESCORT CARRIER UNIT ONE (Task Unit 52.14.1) departed HAWAIIAN Area via Route PROMENADE; arrived ENIWETOK for logistics 1000 (minus 11) June 8.

29 RESERVE GROUP TWO (Task Group 51.19) departed HAWAIIAN Area via Route MAINSTEM; arrived KWAJALEIN 0800 (minus 11) June 9 for logistics.

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30 ATTACK GROUP TWO (Task Group 52.16)
ESCORT CARRIER UNIT TWO (Task Unit 52.14.2) in company departed HAWAIIAN Area via Route PROMENADE; arrived ENIWETOK 0700 (minus 11) June 9 for logistics.

31 BOMBARDMENT GROUP ONE (Task Group 52.17)
ESCORT CARRIER UNIT THREE (Task Unit 52.14.3) in company departed HAWAIIAN Area via Route MAINSTEM; arrived ROI 0700 (minus 11) June 8 for logistics.

31 DEFENSE GROUP TWO (Task Group 51.3) departed HAWAIIAN Area via Route PARKWAY; arrived ENIWETOK forenoon June 13 (minus 11) for logistics; small craft fueling enroute from LST's.

JUNE

1 RESERVE GROUP ONE (Task Group 51.1) departed HAWAIIAN Area via Route MAINSTEM; arrived KWAJALEIN 1200 (minus 11) June 9, for logistics.

4 GARRISON GROUP ONE (Task Group 51.4) departed HAWAIIAN Area via Route MAINSTEM; arrived ENIWETOK 0600 (minus 11) June 14.

7 GARRISON GROUP TWO (Task Group 51.5) departed HAWAIIAN Area via Route MAINSTEM; arrived ENIWETOK 0900 (minus 11) June 19.

7 GARRISON GROUP THREE (Task Group 51.6) departed HAWAIIAN Area via Route RACETRACK; arrived ENIWETOK 1100 (minus 11) June 18.

8 TRACTOR GROUP ONE (Task Group 52.18) departed ENIWETOK via Route URBAN; arrived SAIPAN 0700 (minus 10) June 15; fueling enroute.

8 TRACTOR GROUP TWO (Task Group 52.19) departed ENIWETOK via Route URBAN, 10 miles astern of Task Group 52.18; arrived SAIPAN 0700 (minus 10) June 15.

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9 BOMBARDMENT GROUP ONE (Task Group 52.17) covered by ESCORT CARRIER UNIT THREE (Task Unit 52.14.3) departed ROI via Route SPEEDWAY; arrived SAIPAN 0430 (minus 10) June 14.

9 DEFENSE GROUP ONE (Task Group 51.2) departed ROI via Route URBAN; arrived SAIPAN 1000 (minus 10) June 17.

9 ADVANCE MINESWEEPING GROUP (Task Group 51.17) departed ENIWETOK via Route SPEEDWAY; arrived at rendezvous with battleships of Task Force 58 vicinity Point BRADLEY, SAIPAN, 1200 (minus 10) June 13.

10 ATTACK GROUP ONE (Task Group 52.15) departed ENIWETOK covered by ESCORT CARRIER UNIT ONE (Task Unit 52.14.1) and ESCORT CARRIER UNIT TWO (Task Unit 52.14.2) via Route SPEEDWAY; arrived SAIPAN Transport Area 0600 (minus 10) June 15.

10 ATTACK GROUP TWO (Task Group 52.16) departed ENIWETOK via Route SPEEDWAY, 25 miles behind Task Group 52.16; arrived SAIPAN Transport Area 0600 (minus 10) June 15.

10 RESERVE GROUP ONE (Task Group 51.18) departed KWAJALEIN via Route SPEEDWAY; arrived SAIPAN 1100 (minus 10) June 16.

10 RESERVE GROUP TWO (Task Group 51.19) departed KWAJALEIN via route fifteen miles north of SPEEDWAY; arrived SAIPAN 1100 (minus 10) June 17.

13 DEFENSE GROUP TWO (Task Group 51.3) departed ENIWETOK via Route URBAN; arrived Point CORNEIL 1800 (minus 10) June 18 for further orders. After advancing and retiring along this route until June 21, was ordered to return to ENIWETOK. This group re-organized as Task Unit 53.17.19 and departed ENIWETOK July 17 via route fifteen miles south of URBAN; arrived GUAM July 22.

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15 GARRISON GROUP FOUR (Task Group 51.7) departed SOUTH PACIFIC Area via Route EXPRESS; arrived ENIWETOK 0600 (minus 11) June 21.

17 GARRISON GROUP ONE (Task Group 51.4) departed ENIWETOK via a route fifteen miles north of SPEEDWAY; arrived SAIPAN June 24.

22 GARRISON GROUP TWO (Task Group 51.5) departed ENIWETOK via Route ESPLANADE; arrived SAIPAN June 26.

TASK FORCE 53 (All dates Eastern)

MAY

31 TRACTOR GROUP THREE (Task Group 53.16) departed SOUTH PACIFIC Area via Route EXPRESS; arrived KWAJALEIN for logistics 0900, June 7; fueling small craft enroute from LST's.

31 TRACTOR GROUP FOUR (Task Group 53.17) departed SOUTH PACIFIC Area via Route EXPRESS, 10 miles behind Task Group 53.16; arrived KWAJALEIN for logistics, 1000, June 7; fueling small craft enroute from LST's.

JUNE

3 ATTACK GROUP THREE (Task Group 53.13) MINESWEEPING UNIT TWO (Task Unit 51.17.2) in company departed SOUTH PACIFIC AREA via Route EXPRESS; arrived KWAJALEIN 1100, June 8, for logistics.

3 ATTACK GROUP FOUR (Task Group 53.14) departed SOUTH PACIFIC Area via Route EXPRESS, 25 miles behind Task Group 53.13; arrived KWAJALEIN 1500 June 8, for logistics.

3 BOMBARDMENT GROUP TWO (Task Group 53.15) departed SOUTH PACIFIC Area via Route EXPRESS; arrived ROI 1000, June 8, for logistics.

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JUNE

9 TRACTOR GROUP THREE (Task Group 53.16) departed KWAJALEIN via Route URBAN; arrived vicinity of Point CORNELL June 16 to await orders. After cruising in this area until June 25, proceeded to ENIWETOK via Route SPEEDWAY; arrived June 30.

9 TRACTOR GROUP FOUR (Task Group 53.17) departed KWAJALEIN via Route URBAN, 15 miles behind Task Group 53.16; arrived vicinity of Point CORNELL June 16 to await orders. After cruising in this area and Areas DELAWARE and ILLINOIS until June 30, proceeded via Route SPEEDWAY to ENIWETOK; arrived July 5.

10 BOMBARDMENT GROUP TWO (Task Group 53.15) departed ROI via a route fifteen miles south of Route URBAN; arrived at bombardment positions off TINIAN 0430 June 14.

12 ATTACK GROUP THREE (Task Group 53.13) departed KWAJALEIN via Route SPEEDWAY; arrived Point SIMMONS 1600 June 16 to await orders. After cruising in this area until June 25, proceeded to ENIWETOK via Route SPEEDWAY; arrived June 28.

12 ATTACK GROUP FOUR (Task Group 53.14) departed KWAJALEIN via Route SPEEDWAY, 25 miles behind Task Group 53.13; arrived Point SIMMONS 1800 June 16 to await orders. After cruising in this area and Area NEBRASKA until June 30, proceeded to ENIWETOK via Route SPEEDWAY; arrived July 3.

JULY

11 TASK UNIT 53.1.11, Commander Task Force 53 in APPALACHIAN, with COLORADO and CHENANGO departed ENIWETOK via Route URBAN; arrived GUAM July 14.

15 TRACTOR GROUP THREE (Task Group 53.16) departed ENIWETOK via Route URBAN; arrived GUAM 0500, July 21.

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15 TRACTOR GROUP FOUR (Task Group 53.17) departed ENIWETOK via Route URBAN; 10 miles behind Task Group 53.16; arrived GUAM 0500, July 21.

17 ATTACK GROUP THREE (Task Group 53.13) departed ENIWETOK via Route URBAN; 20 miles behind Task Group 53.14; arrived Northern Transport Area, GUAM, at 0600, July 21.

17 ATTACK GROUP FOUR (Task Group 53.14) departed ENIWETOK via Route URBAN; arrived Southern Transport Area, GUAM, at 0600, July 21.

20 TASK UNIT 52.6.16, 11 LCT's, ROBINSON and OVERTON, departed SAIPAN via Point VASSAR and direct route; arrived GUAM 1000, July 21.

23 GARRISON GROUP THREE (Task Group 51.6)
GARRISON GROUP FOUR (Task Group 51.7) in company departed ENIWETOK via Route PIMLICO; arrived GUAM July 27.

(D) PRINCIPAL TROOP TACTICAL LANDINGS.

12. (a) The troop tactical operations for the FORAGER operation, as carried out, were divided into three phases: PHASE I, Capture of SAIPAN; PHASE II, Capture of GUAM; and PHASE III, Capture of TINIAN.

(b) The landings for these phases were made as indicated, all landings being heavily supported by naval gunfire and by strafing and bombing by aircraft.

(1) PHASE I - Capture of SAIPAN.

The landing was made by the SECOND and FOURTH Marine Divisions abreast (four assault Regimental Combat Teams in line) on Dog Day, June 15, at CHARAN-KANOA from transports, LST's, and LSD's, using LVT's, DUKW's, and landing boats. A demonstration to indicate a projected landing was made off TANAPAG HARBOR by

vessels and troops of the Division Reserves of the SECOND and FOURTH Marine Divisions simultaneously with the main landing. These Reserves then landed at CHARAN-KANOA on June 15 and June 16. The Expeditionary Troop Reserve, 27th Infantry Division, less one Regimental Combat Team, landed in echelon on the same beaches on June 16 and June 17, and the remaining Regimental Combat Team landed on the same beaches on June 20. (For map, see Annex (4), Enclosure (A)).

(2) PHASE II - Capture of GUAM -

The landings were made on W Day (D plus 37, July 21) by the THIRD Marine Division on a three-regimental front on beaches in the vicinity of ASAN, and by the FIRST Provisional Marine Brigade and one Regimental Combat Team of the 77th Division on a two regimental front on beaches in the vicinity of AGAT. On July 23 and 24 the remainder of the 77th Division also landed near AGAT. LVT's, DUKW's, landing boats, and later LST's and LCT's were used for landing troops. (For map, see Annex (5), Enclosure (A)).

(3) PHASE III - Capture of TINIAN -

On completion of the capture of SAIPAN, the SECOND and FOURTH Marine Divisions rehabilitated for the attack on TINIAN. Rehabilitation and embarkation required fourteen days. The attack was made on J Day (D plus 40, July 24), and was principally a shore-to-shore operation from SAIPAN in landing boats and LST's and LCT's with LVT's and DUKW's embarked; but some troops were embarked in APA's and landed in landing boats. These APA's carried reserves, and first conducted a demonstration off SUNHARON. The landings were made on WHITE Beaches ONE and TWO, two narrow beaches on the northwest side of the island, in what amounted to landings in two columns of battalions, with the FOURTH Marine Division leading. (For map, see Annex (6), Enclosure (A)).

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(E) SUMMARY OF TROOP TACTICAL OPERATIONS

13. The paragraphs of this section summarize the principal features of the capture of SAIPAN and TINIAN ISLANDS by troops of Task Force 52, and the capture of GUAM by troops of Task Force 53.

CAPTURE OF SAIPAN (For map, see Annex (4), Enclosure (A)).

14. Following intensive air and naval bombardment for four days, minesweeping of the shelf to the westward of SAIPAN for two days, and two days' reconnaissance of landing beaches and alternate landing beaches by the Underwater Demolition Teams, the SECOND and FOURTH Marine Divisions landed at CHARAN-KANOA on SAIPAN ISLAND at 0840 on June 15. The bombardments had driven most of the enemy troops away from the beaches except in the vicinity of AFETNA POINT, the sugar mill section of CHARAN-KANOA, and a few entrenched positions on the left and right flanks of the landing force. No obstacles, and only a few land mines, were encountered on the beaches, but the enemy, from prepared positions on commanding terrain to the front and flanks offered stubborn resistance. Enemy artillery and mortar fire were intense, and caused many casualties among the troops, particularly along the beaches. Initial deep penetrations by the landing force on June 15 were somewhat reduced until tanks and field artillery became available.

15. A sufficient beachhead was secured during June 16 to permit the 27th Infantry Division to begin landing in the afternoon. This division, less the 106th Regimental Combat Team, completed landing on the 17th and was assigned the sector on the right.

16. By the night of June 18, pivoting on the left of the SECOND Marine Division near the radio station north of AFETNA POINT, our line had moved across the [redacted] to the shores of MAGICIENNE BAY, had captured ASLITO (renamed ISELY) Airfield, and had occupied all of the southern [redacted] of the island except a strong pocket on NAFUTAN POINT. A considerable part of the enemy artillery and many tanks had been destroyed or captured.

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Part of the 27th Division was left to clear out NAFUTAN POINT, and the line was reformed to continue the northward movement, with the remainder of the 27th Division in Corps Reserve.

17. The advance along the shores of MAGICIENNE BAY was difficult. On June 20, the 106th Regimental Combat Team landed, and, on June 23 the line was again reformed with the SECOND Marine Division on the left, the 27th Infantry Division in the center, and the FOURTH Marine Division on the right. By this time the difficult terrain on the southern slopes of MOUNT TAPOTCHAU had been reached, and daily advances were moderate over the steep hills and through the deep ravines. The enemy still retained some artillery and many mortars. By the night of June 25, the SECOND Marine Division had entered the southern part of GARAPAN TOWN and had captured the top of MOUNT TAPOTCHAU; and the FOURTH Marine Division had occupied the entire KAGMAN PENINSULA up to and including CHACHA TOWN. The 27th Infantry Division had advanced slowly through very difficult country, by-passing several enemy strong points in caves and ravines.

18. The CHARAN-KANOA air strip was in use by our artillery spotting planes on June 20. One squadron of Army P-47's landed and began operating from ISELY Airfield on June 22; two additional P-47 squadrons landed on the 24th, and one Army night fighter squadron landed on the 25th.

19. By July 2, the advance had become more rapid; GARAPAN and the central massif were captured on July 3, and TANAPAG on July 4, the line then running from TANAPAG southeastward across the island. The demoralized enemy had withdrawn to the northeast end of SAIPAN. The narrow part of the island having been reached, the SECOND Marine Division was then withdrawn to Corps Reserve, and the 27th Division took over the left of the line. On July 7, the left flank of the 27th Infantry Division was over-run by a strong enemy "BANZAI" counter-attack, and our losses were severe. However, the lost ground was regained by our forces by dark of the same day. On July 8, our attack was resumed, the SECOND Marine Division replacing the 27th Infantry Division on the left. Advance was rapid until 1545K on July 9 when all organized enemy resistance ceased. However, there still

remained several thousand enemy troops in small pockets, caves, and ravines, scattered throughout the island. Mopping up operations were pushed vigorously.

20. Extensive naval gunfire both day and night, and aircraft bombing and strafing during daylight, were employed in support of troop operations throughout the capture of SAIPAN. Particularly valuable in support of troops were the Army P-47's, with their ability to strike heavy blows with a variety of weapons.

CAPTURE OF GUAM (For map, see Annex (5), Enclosure (A).

21. Preceded by softening-up operations by naval gunfire and air bombing and strafing for about fourteen days, the THIRD Marine Division, and the FIRST Provisional Marine Brigade reinforced by the 305th Regimental Combat Team of the 77th Infantry Division, made successful landings on GUAM at 0830 on July 21, over beaches at ASAN and AGAT, respectively. There had been many emplaced reef and beach obstacles, and some anti-boat and anti-tank mines on all of the landing beaches, but these were destroyed by the Underwater Demolition Teams by daring operations during the three days and nights preceding the landing. Air and naval gunfire support had demolished the towns and enemy fixed guns and heavy anti-aircraft guns, and had driven the troops away from the immediate vicinity of the landing beaches. Aircraft and naval vessels continued to render excellent support throughout the operation; during the latter part, Army P-47's and B-25's from ISELY Field, and Marine Fighters from OROTE Field performed important missions.

22. The THIRD Marine Division encountered determined opposition, particularly from enemy troops on the high ground on their left front, and in the vicinity of AGANA. Several strong enemy counter-attacks were launched from the latter position. For several days moderate hostile artillery fire was directed against the beaches and boat lanes. The division quickly overcame the resistance on their right front and right flank, and by July 24, the high ground on their right front, and PITI Navy Yard and CABRAS ISLAND had been captured.

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23. The reinforced FIRST Provisional Marine Brigade met light opposition initially, except for a rather severe counter-attack the first night, but resistance lessened as the troops advanced, until they reached the approaches to OROTE POINT. Considerable enemy field artillery and mortar fire was placed on all beaches and boat lanes, but losses were light. The remainder of the 77th Division commenced landing on July 23, and on July 24 took over responsibility for the right of the line. The FIRST Brigade, reenforced by the 305th Regimental Combat Team, then swung left against OROTE PENINSULA, and after five days of severe fighting, captured the peninsula on July 29. On July 26, although OROTE PENINSULA was still occupied by enemy troops, Task Force 53 began clearing and using the northern part of APRA HARBOR. During this period, the THIRD Marine Division and the 77th Infantry Division advanced to the final beachhead line, securing MT. CHACO, MT. ALUTOM, and MT. TENJO, and capturing part of AGANA. By July 27 practically all of the enemy had concentrated back of the line from AGANA to PAGO BAY, with the main resistance center near BARRIGADA.

24. On July 30, the FIRST Provisional Marine Brigade took over responsibility for protection of the right flank of the 77th Infantry Division. The THIRD Marine Division and the 77th Infantry Division, attacking abreast, and pivoting on the left at AGANA, quickly pushed across the island until they captured the road leading from AGANA to PAGO BAY on July 31, the enemy withdrawing his advanced elements closer to BARRIGADA. The enemy by no means was demoralized, but for some days continued a strong and skilful resistance. Our daily advances were substantial, and our troops captured BARRIGADA on August 4. By August 1 the enemy had started concentrating at MT. SANTA ROSA in his final defense position. Our troops were hampered by jungle but continued a steady advance. On August 7 the FIRST Provisional Marine Brigade was brought back into the line, and garrison troops assigned to patrol the southern part of GUAM. After a stubborn defense of the slopes of MT. SANTA ROSA, the enemy was finally driven out, and on August 10 the announcement was made that all organized resistance on GUAM had been overcome. As in the case of SAIPAN, considerable numbers of small parties of Japanese remained in the northeastern portion of the island, and mopping up operations were immediately undertaken.

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CAPTURE OF TINIAN (For map, see Annex (6), Enclosure (A)).

25. Elements of the Underwater Demolition Teams and of the FIFTH Corps Reconnaissance Company, during the nights of July 22-23 and 23-24, reconnoitered WHITE Beaches ONE and TWO and their approaches, on the northwestern coast of TINIAN. They found that while these beaches were narrow and rough, and had meager exits, they could be used for landings. The principal problem seemed to be the ability to provide troops with necessary supplies and motor transport over these narrow beaches. At 0830, on July 24, the FOURTH Marine Division landed, one Regimental Combat Team landing on WHITE Beach ONE, and two on WHITE Beach TWO. Light resistance was encountered from machine gun and mortar fire, but by dark, an excellent beachhead had been secured. A demonstration of a mock landing, supported by heavy air and naval bombardment, had been made in the morning against beaches at SUNHARON in the southern part of the island, where most of the enemy defenses were concentrated. The actual landing was preceded by strong bombardment and by the fire of nearly all of the shore batteries of the Force, which had been massed on the southern part of SAIPAN.

26. During the night of July 24-25, a counter-attack was made by enemy naval and air troops stationed at USHI POINT airfield. Some penetrations were made, but these were liquidated with small losses to our troops. The SECOND Marine Division commenced landing on July 25, and by the morning of the 26th, had taken over the left of the line. At 0800 this date, both divisions launched a coordinated attack. Advance was rapid against light resistance, and USHI POINT and the airfield were captured during the day. MT. LASSO, the dominating northern position, was captured the same day. On the 27th the advance down the island was resumed, no serious resistance being encountered until our lines had reached the high ground north of SUNHARON and in the vicinity of MASALOG POINT.

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27. A typhoon in the near vicinity on July 27 created heavy swells and a choppy sea, greatly interfering with unloading of supplies, equipment, and artillery. It was found that LVT's and DUKW's could land when other landing craft could not.

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Several NATS planes were pressed into service, and thirteen Army transport planes brought up from the MARSHALLS. An air shuttle from SAIPAN to TINIAN was established, which proved most valuable for landing supplies and for evacuating casualties during the inclement period.

28. On July 30, the FOURTH Marine Division captured SUNHARON, and the SECOND Marine Division penetrated to the top of the high ground northwest of MARPO POINT. Two enemy counter-attacks were repulsed with light losses for our troops. On August 1, both divisions made a final attack against the enemy entrenched on the high ground between POINT MARPO and POINT LALO, and at 1855K that day the Commanding General announced the capture of TINIAN. Some pockets of resistance remained in the cliffs in the southern end of the island.

29. SUNHARON HARBOR was swept of moored and beach mines and placed in operation shortly after the capture on July 31 of the commanding terrain overlooking the harbor.

(F) POSTPONEMENT OF ATTACK ON GUAM

30. Although the SAIPAN landings were interfered with by a moderate westerly swell which arose during D Day, June 15, and continued through the 17th, all of the infantry of the four assault regiments, most of their artillery and tanks, and part of the two reserve regiments were landed by darkness of D Day. On June 16, the remaining combat troops and part of the service troops of the SECOND and FOURTH Marine Divisions completed landing. Based on latest intelligence which had shown considerable strengthening of the SAIPAN defenses, it had been previously decided that it would be essential to employ on SAIPAN the 27th Division, less one Regimental Combat Team. The 106th Regimental Combat Team was to be held in floating reserve for SAIPAN or GUAM as required. Consequently, the 27th Division, less the 106th Regimental Combat Team, began landing on June 16, and completed landing the next day, except for some service elements.

31. The losses sustained by our troops on June 15 and 16, combined with the stubborn defense put up by the enemy,

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led to an oral request to Commander Task Force 51 on June 16, by the advance headquarters of Task Group 56.1 to land the remainder of the 27th Division. Action on this request, however, was held in abeyance for the time being by Commander Task Force 51, because of its delaying effect on the attack on GUAM, scheduled for June 18.

32. On June 17, Commander Task Force 56 (Lieutenant General Holland M. SMITH, USMC) established his headquarters on shore and assumed direct command of troops, as Commanding General, Northern Troops and Landing Force (Commander Task Group 56.1).

33. At 2113K, June 18, Commander Task Force 56 formally recommended the 106th Regimental Combat Team be landed in order to maintain the continuity of the offensive. At 0810K, June 19, Commander Task Force 51 requested Commander Task Force 56 to give further consideration to the recommendation because, in view of the opinion held by both Commander Task Forces 51 and 56 that a landing on GUAM should not be attempted without a reserve, landing the 106th Regimental Combat Team on SAIPAN would necessarily postpone the GUAM attack. Commander Task Force 51 also requested advice as to whether or not Task Force 53 would any longer be required in the area as a floating reserve for SAIPAN.

34. At 1315K, June 19, Commander Task Force 56 stated there was urgent need for the 106th Regimental Combat Team on SAIPAN; renewed his recommendation that this unit be landed; and recommended that Task Force 53 return to ENIWETOK, as GUAM should not be attacked without sufficient reserves. He also expressed the belief that, after the decisive terrain on SAIPAN had been captured, it might be possible to spare one Regimental Combat Team to act as the GUAM Reserve.

35. Commander Task Force 51 approved the recommendation to land the 106th Regimental Combat Team. This operation was accomplished on June 20. However, it was directed that as little equipment and material as possible be landed, in

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order that the 106th Regimental Combat Team could be kept in readiness to reembark on short notice.

36. Task Force 53 was retained in the area for the time being as floating reserve. On June 25 the transports and LST's carrying the THIRD Marine Division were ordered to ENIWETOK; and on June 30 the transports and LST's carrying the FIRST Provisional Marine Brigade were ordered to the same port.

37. Late on June 21, Commander Task Force 51 received a despatch from the Commander in Chief, U. S. Pacific Fleet, requesting an estimate as to when the attack on GUAM might be expected, and stating that one Regimental Combat Team of the 77th Division would sail from HAWAII about July 1. The question was thoroughly canvassed among the Commander FIFTH Fleet and Commander Task Forces 51 and 56. As a result of the discussions, Commander FIFTH Fleet, in despatch 240622 replied that:

(a) The SAIPAN situation did not permit withdrawal of troops then, nor could any date be set for such withdrawal;

(b) It was possible that some troops from Task Force 53 might be required on SAIPAN;

(c) A date for W Day could not be set, as the attack on GUAM should not be made without adequate reserves; and

(d) Hard fighting was in progress, and could be expected to continue until SAIPAN, TINIAN, and GUAM were captured.

38. Commander Task Force 53 and the Commanding General, Southern Troops and Landing Force (Commander Task Group 56.2), with staff officers, arrived by air at SAIPAN on June 30 for conferences on the GUAM situation. Successive photographs had disclosed a very decided increase in the defensive strength of the position, and Commander Task Group 56.2 recommended that one additional division, the 77th, be added to his force and be committed with the other troops; with an additional division in reserve. The recommendation for this additional division was disapproved by Commander Task Force 51.

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39. The operations on SAIPAN, where heavy fighting was still in progress, by this time indicated that no troops could be spared from there, even after capture, without postponing the attack on TINIAN. After careful review of the situation and the plan of attack, it was, therefore, decided to recommend:

(a) A softening up program by air bombing and ships' gunfire be initiated against GUAM as soon as possible, using Task Force 53 CVE's and gunfire support ships, reenforced by as many CVE's and gunfire support ships as could be spared from Task Force 52, and by one or two Fast Carrier Groups;

(b) That W Day be postponed until arrival of all of the 77th Division in the area, and to land this entire division on the AGAT Beaches as part of the Landing Force, one Regimental Combat Team simultaneously with the FIRST Provisional Marine Brigade, and the remainder of the division in echelon.

40. These recommendations were submitted in conference to Commander FIFTH Fleet, who, on July 3, on the basis of information then in hand, informed the Commander in Chief, U. S. Pacific Fleet, that the tentative date for W Day would be July 25. Later information that the 77th Infantry Division would arrive earlier than expected permitted W Day to be advanced to July 21, which date was approved by the Commander in Chief.

41. The softening up program against GUAM was commenced July 7, and was undoubtedly efficatious in reducing the enemy's resistance, our own casualties, and the length of time required to complete the capture. Even with the effect produced by this program, the troops actually employed by us on GUAM were none too many.

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(G) EFFECT ON OPERATIONS OF APPROACH OF JAPANESE FLEET

42. Task Force 53 and the Joint Expeditionary Force Reserve had been brought sufficiently far forward so that the GUAM landings could have been started on D plus TWO, although

the plan was to land on D plus THREE. By the night of D Day, matters ashore looked sufficiently favorable to justify setting W Day at D plus THREE, with, however, the proviso that the decision must be reexamined the next day. This decision was taken by the Commander FIFTH Fleet, on recommendation of Commander Task Force 51. The matter was complicated by information that the Japanese Fleet could be in a position to attack by D plus TWO (June 17).

43. On June 16, after conferences and consideration of the rapid approach of the Japanese Fleet, Commander FIFTH Fleet reached the following decisions:

(a) The designation of W Day for the GUAM landing would be cancelled;

(b) Certain previously warned cruiser and destroyer units attached to Task Force 51 would replenish ammunition and fuel, and join the Fast Carrier Task Forces on the 17th;

(c) Unloading at SAIPAN would continue through daylight of the 17th, and at dark all transports which were not needed for immediate unloading would withdraw to the eastward of SAIPAN and not return the next day;

(d) Certain transports and LST's, needed for immediate unloading, and small craft, and screen, would remain at SAIPAN. Additional transports and LST's would be sent back from the group that was to retire eastward as required for unloading;

(e) The OBB, part of the cruisers, and some destroyers would cover the transport area from about 25 miles to the westward during darkness to guard against the possibility that hostile surface vessels would evade our fleet. Units from the supporting groups would provide naval gunfire day and night;

(f) CVE's nearby to eastward of SAIPAN would continue to provide air cover for all groups of ships in the vicinity, and provide troop support aircraft; but it was decided no support or cover could be expected from fast carriers after the 16th. Their airplanes would, however, neutralize GUAM and ROTA airfields as practicable;

(g) Six patrol seaplanes would be ordered to arrive at SAIPAN (and base on two Task Force 51 AVD's) on June 17, to conduct night searches against the enemy.

44. The transports to the eastward remained in close proximity so that they could send ships in to SAIPAN for unloading as required, Task Force 53 groups were kept oscillating eastward and westward in an area 50 miles to the south. The enemy operations affected the rate of unloading very little, but did diminish to some extent the amount of expected local air and gunfire support for troops. The transports at SAIPAN, the covering vessels, and the CVE and tanker groups were attacked daily by enemy planes and Task Force 53 groups once or twice, but the Task Force 52 transports to the eastward, being also somewhat to the north, were not molested. Commander Task Force 52 commanded the forces to the eastward, and Commander Task Group 52.2 the forces at, and covering, SAIPAN. On June 21, Commander Task Force 52 returned to SAIPAN with practically all of the loaded and partially loaded transports, and the same day despatched a considerable number of unloaded transports and LST's to ENIWETOK. Part of these transports then returned to PEARL to embark the 77th Division.

45. The Commander FIFTH Fleet returned to SAIPAN on June 23, and the detached cruisers and destroyers returned by June 25.

(H) GENERAL NOTES AND COMMENTS ON THE FORAGER OPERATION

APPROACH AND LANDING ON SAIPAN

46. The final approach to SAIPAN was complicated, by the fact that four large and separate dispositions were scheduled to arrive simultaneously, and by the fact that, the point of attack being on the west side of the island, practically the entire organization of dispositions was required, in darkness, to swing around through 180°. During this maneuver, large dispositions had to pass around and near others. Consequently, a very accurate movement schedule had to be maintained. All units arrived at their assigned stations within a very few minutes of required times.

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47. How Hour was postponed ten minutes, to 0840, and LVT waves all departed from control lines on time. Owing to the width of the reef and interference from coral heads, some of the first waves were several minutes late in getting to the beach; on the whole, however, the landing maneuver was excellently performed. Preparatory fire had so disrupted the enemy defensive arrangements that practically no enemy fire was received until about the time the fourth wave was approaching the beach. At this time a large volume of shore artillery and mortar projectiles began to drop among the LVT's, boats, and LST's, though with little initial effect. It was not until the enemy started concentrating his fire on the troops and LVT's on, and in rear of the beach, that it became effective in causing casualties. Some hostile machine gun fire also appeared at this time.

48. Enemy gunfire came from artillery positions between 1,000 and 2,000 yards back of the beach, and from TINIAN. Machine gun fire came from the sugar mill and other nearby structures, and from AGINGAN POINT. Two or three gunfire ships, and several small craft, LVT's, and boats were struck.

49. The gunfire and air plans had contemplated that fire on the troops would be received from these positions, and heavy scheduled counter-battery and neutralizing fires were laid down. However, the spaces for deployment of enemy artillery were large; they had been carefully sited and registered, and it took much time to cover the area thoroughly with our own fire. It is exceedingly difficult to discover the positions of field artillery and mortars, either from the air, ground, or sea, and it necessarily is a patient and lengthy process to search out and destroy these guns, particularly when they are firing from reverse slopes. During the very critical period of several hours after troops have landed, and before they have been able fully to establish their organization and begin a strong advance, the danger is greatest from enemy counter-attacks and from enemy field artillery located from 1,000 to 4,000 yards behind the beach.

50. High angle five-inch fire from destroyers would be most valuable in such situations, and there must be no hesitation in expending large amounts of ammunition. Greater speed in getting our own artillery and tanks ashore is of the highest import-

ance. Finally, a rapid and determined advance of the troops to a line well inland from the beach, with supporting troops following as rapidly as possible, seems to be indicated. In this case, the very wide reef and the coral studded lagoon, with inability to use boats to any considerable extent, were handicaps. Furthermore, while LVT's are essential for reef landings, there is no question that their use imposes a landing time schedule much slower than when troops can be landed directly on sandy beaches from LST's, LCT's, and boats.

A MAJOR WESTERN BASE

51. The logistic problems of the operation were solved effectively, and, in spite of the perhaps unexpected length of time the Fleet remained in the forward area, no shortages developed that vitally interfered with continued operations. Some shortages did develop; much air transportation from PEARL was used for urgent items; and in some cases special cargo had to be loaded at PEARL and sent out in fast ships. The fresh water situation was always delicate, in view of the requirements of the large number of small naval vessels and merchant vessels that do not make water. It was necessary, in the MARIANAS, to make daily collections by LST and LCT of small amounts of water that could be spared by the self-sustaining vessels. Self-propelled water barges or water ships ought to be supplied in larger numbers. Refrigerated foods and ship's service stores were available in considerably less quantities than naval personnel are accustomed to, but this lack was not a real hardship, as dry stores were always at hand. However, there had to be a continual transfer of food stores among naval vessels to keep the smaller ones supplied, with consequent interference with usual functions. It is highly desirable to increase the number of bulk refrigeration ships, and to add as many self-propelled YF's as can be obtained.

52. A very great deal of ammunition was used, and while most wants were supplied in time, ammunition expenditures several times reduced stocks on board combatant vessels to an undesirably low point. A great deal of ammunition had to be transferred to ships at both SAIPAN and GUAM and, since battleships and carriers could not lie alongside ammunition vessels in the open sea, and

frequently smaller vessels could not, ammunition and empties had to be transferred via LCT's, barges, and landing boats. Naturally, this created a decided retardation in the desired rate of discharge of troops and freight from ship to shore. Because the operational demands for combat vessels usually did not permit them to return the thousand miles to ENIWETOK, and thus be out of action for ten days, these unloading interferences had to be accepted. Even at ENIWETOK, since it is impossible to predict the order in which vessels will require various types of ammunition and stores, there were unavoidable delays due to the necessity for partial unloading into barges (which were all too few) in order to get at the items that were required at once.

53. These matters, and others which might be mentioned, add up to:

(a) For maintaining continued, active fleet operations, a distance of 1,000 miles to the supply base is too great;

(b) Bulk-loaded supply vessels are not satisfactory unless loaded for selective discharge;

(c) Many small supply craft and barges are required in the forward areas, over and above those that the amphibious forces can supply;

(d) As we get further away from PEARL, the supply problems increase, and more and more ships will lie idle in forward areas if stocks are to be maintained to provide for all requirements.

54. The necessity grows more clear for a major supply base near the scene of operations, where large stocks can be established ashore. The Western Base should have a large and secure harbor with piers, and an adequate number of small craft to care for the re-supply of ships. Unless such a base can be established, the maintenance of a large fleet and a large army in the Asiatic Theater will pose almost insurmountable difficulties. SAIPAN and GUAM have possibilities that, if exploited, will prove important, but they can never be developed in a manner that will meet the needs of a major campaign.

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THE GUNNERY PROBLEM

55. In amphibious operations, there are two major accomplishments required of bombardment weapons of whatever character:

(a) To destroy guns on shore that will prevent our transports from arriving in, and remaining in, the transport areas while landing troops and their equipment and supplies;

(b) To inflict sufficient damage on enemy defensive installations, weapons, and troops as to permit our troops to land and capture the position without unacceptable losses.

56. Whether we employ ships' gunfire, airplane weapons, or field artillery to accomplish these ends is a matter of indifference, so far as the purpose is concerned. Each category of fire has its own points of excellence and weakness. All categories, however, are working to the same end. They are, in fact, complementary to each other, and all ought to be used in conjunction with each other for the solution of the same problem.

57. These principles are clearly stated in Circular Letters issued by the Commander Amphibious Forces, and in SOP's issued by the Commanding General, Fleet Marine Force. But there have always been difficulties during planning and executing these expeditions in bringing the representatives of these three categories of destructive fire sufficiently close together to exploit the full capabilities of available weapons. Each group tends to go its own way, to the detriment of coordination. Intelligence organizations in all spheres, also have a vital function to perform in supplying useful information to all.

58. When the planning for an operation first starts, it is essential that the topmost echelons of officers concerned with ships' gunfire, aviation support, shore artillery, and Intelligence meet in conferences, exchange views, and map out a cooperative and articulated major gunfire plan. The detailed plans of each must fit into, and together make up, the major plan, and without interference. Each individual plan should be checked by the repre-

sentatives who are making the other plans. When placed in operation, the progress of the plans, and their variations, should be known to all. The continuous exchange of views and information, and agreements on allocations of scope and targets are required. Where possible, committees should meet daily, to maintain cooperation and eliminate interferences.

59. In the SAIPAN and TINIAN Operations, better cooperative action occurred than previously. But there is still plenty of room for improvement, and efforts will continue toward that end.

CONTROL, BEACH, AND SHORE PARTIES

60. Although discussed in greater detail in Enclosure (C), this subject is mentioned here because of its importance. As the result of a careful effort to improve on previous operations, it may be stated that very definite progress has been made, and that conditions this time were better than before. This improvement can be ascribed to:

(a) The use of "professional" Control, Beach, and Shore Parties; that is, of officers and men who have performed these duties before;

(b) The increased use of troop officers in Control Parties as advisers to the Control Officers;

(c) An intensive study of the details of the problem, and the issue of instructions in greater detail, adapted to the particular operation in view;

(d) A more effective control and more centralized organization of the various parties;

(e) Improved cooperation, through requiring that, whenever possible, corresponding officers and men of the three related parties of all echelons embark on the same ship, or, at least, in the same transport division;

(f) Requirement that corresponding personnel of all

parties know each other personally, and solve their common problems together.

61. These three parties, for a two-division landing, are large and have complex organizations. All three have essentially the same organization, and must work closely together to obtain satisfactory results. It is believed that present ideas are sound, and ought to be vigorously promoted. (See Annex (1), Enclosure (C)).

MISCELLANEOUS

62. Underwater Demolition Teams have thoroughly proved their usefulness in this operation. The information they obtained at SAIPAN and TINIAN was very helpful; while landings on GUAM would have been most difficult except for their success in the demolition of reef obstacles and mines. It is remarkable how close these teams can approach formidable beach defenses, if they are properly covered by gunfire, bombing, strafing, and smoke. Their skill, determination, and courage are deserving of the highest praise. We definitely are on the right track in this matter, and will endeavor to effect such improvement in technique and equipment as is indicated by this past experience.

63. The Underwater Demolition Teams work up to the edge of the beach. It is equally important that Landing Forces be provided with skilled land-mine and land-obstacle demolition detachments, attached to leading waves, and in sufficient numbers to clear the way for the troops to proceed inland promptly. It will not be satisfactory to extend the sphere of action of the Underwater Demolition Teams to the land, as these naval personnel are not trained or equipped as soldiers. The work of land-mine disposal units is a technical specialty in itself.

64. The shallow water anti-boat mines laid by the enemy on a number of beaches were very troublesome, and took a long time to remove. Fortunately, few were found on the beaches where landings were made. But in future operations we can expect to encounter formidable defenses in the way of deep-water, shallow-water, reef, and beach mines, plus obstacles, and we should be fully prepared to overcome them without delay.

65. The use of smoke for protecting large numbers of anchored vessels against night aircraft attack proved very successful. (See Enclosure (H)). Conditions usually were favorable, as the air was humid and the wind usually below ten knots. Recommendations will be submitted separately for a wider distribution of smoke equipment, and for an adequate supply of fog oil.

66. The prompt supply to SAIPAN of Army day and night fighters was most helpful for troop support, and for day and night fighter cover. It is believed that the success of night fighters based ashore and on carriers was largely instrumental in inducing the enemy to discontinue his air attacks against the ships of the Expeditionary Force, and against our troops on shore.

67. The enemy made several attempts to evacuate personnel from SAIPAN and TINIAN by submarine and aircraft. It is believed that our tight, close-in patrol around the islands by LCI's, SC's, and other small craft prevented any success by submarines. One prisoner of war stated that a submarine had tried for at least two nights to get in to MARPI POINT (SAIPAN), but had been unsuccessful. On four other occasions, the patrol sank or drove back landing craft moving along the shore, though whether for the purpose of contacting submarines or for transporting troops is not known in all cases. It is known, however, that during one night one enemy plane landed on the MARPI POINT airfield, and on another occasion two or three planes landed on the southern airfield on TINIAN. In both cases, the planes remained about three hours and took off successfully. However, on several other occasions, aircraft landing attempts were defeated by the use of starshells and gunfire on the fields.

68. In the MARIANAS, for the first time in amphibious operations, reasonably adequate floating facilities were available for salvage, and for the repair of boats and small craft. Five ATF, 2 ARL, 1 ARB, and 2 ARS, divided between SAIPAN and GUAM, were on hand from the beginning. Later 1 ARD arrived at SAIPAN and docked many injured vessels, including destroyers; and one ARD was at GUAM, just beginning to operate on August 15th. In addition, the HOLLAND arrived at SAIPAN late in July, and thereafter gave valuable service. It is hoped that similar craft will be present in the amphibious area in future operations.

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Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

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69. We are badly in need of "mother" ships for the YMS, PC(S), PC, SC, LCI, and LCT types of craft used in such large numbers in amphibious operations. These vessels require frequent servicing of all kinds. The only solution has been to assign to transports and combatant ships as "mothers" several of these craft, with a consequent reduction of effectiveness of the large vessels. It is expected, after studies are completed, to recommend that several LST's be converted to mother-ships for small craft.

70. The KEOKUK was loaded at TIBURON with 10,000 feet of the new LISP-2 anti-submarine net, completely made up and placed on board with buoys and anchors attached. On June 28, this net was successfully laid at SAIPAN in three hours and thirty five minutes, though it required another twenty five hours for small boats to cut the brails. However, if brails are cut as the net is stowed on board, no extra time will be lost. The only difficulty found in operation was that occasionally a section would drag, indicating that heavier moorings should be used. On August 12, the net was standing up well. It can be stated, therefore, that this net, with the method of laying the made-up net, is an unqualified success, and much additional net will be requested for future operations.

(I) CONCLUSION

71. The Force Commander cannot close without expressing his sincere respect and admiration for our military personnel of all services and arms, for their eagerness to close the enemy; for their magnificent courage when in the presence of the enemy; and for their skill and determination in overcoming him. They are cheerful in adversity and ingenious in surmounting difficulty. The weapons they are provided with are excellent, and stand up well under prolonged use. Our planes, tanks, guns, trucks, and ships--and above these things our men--are all a sturdy lot.

R. K. TURNER

Distribution
Attached sheet.

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Joint Expeditionary Force (TF 51),
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

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AUTHENTICATED:

H. B Stark

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Flag Secretary.

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Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ENCLOSURE (A)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

NARRATIVE OF THE OPERATION

INDEX

I. REHEARSALS FOR THE OPERATION

1. The Northern Attack Force (TF 52), after loading and embarking troops in the HAWAIIAN Area commenced rehearsal exercises for FORAGER in LAHAINA - MAALAEA BAY - KAHOOLAWE Area May 15 - 19, 1944, in accordance with CTF 52 Training Order No. A12-44. These exercises consisted of troop and vehicle landings with simulated air and surface bombardments on beaches at MAALAEA BAY, as nearly as possible in simulation of FORAGER landings. On one landing assault troops remained ashore overnight and reembarked the following day. Practice retirements of ships were made at night with approach and landings being made the following morning. One of these approaches was made on KAHOOLAWE Island. Rehearsal debarkation of assault waves was made, covered by actual close fire support with live ammunition from assigned fire

support ships. During this rehearsal, assault waves approached the beach but did not actually land due to unsuitable beaches on that island.

2. The following operating casualties occurred during the exercises: enroute to the training area LSTs 71, 390 and 485 lost LCTs 999, 984 and 988 respectively through self-launching in fairly heavy seas during darkness. Two were loaded with six 4.2 chemical mortars and 2500 rounds of projectiles each. This excess weight may have helped cause the accident; however an investigation revealed that insufficient, and perhaps improper securings, plus the fact that at least two were carrying considerable additional fresh water in the LCTs' tanks and voids, may have been chiefly responsible for the accident. On LST 485 the accident resulted in the loss of nineteen men killed or missing and the wounding of five more, as the LCT was rammed and sunk by LST 69, the next vessel in column. LCT 984 had the ramp and engine room doors open when launched and it became so badly water logged that it capsized and sank slowly, assisted at the end by gunfire. LCT 999 had the ramp closed. It suffered little damage, and was towed back to PEARL HARBOR. During the bombardment of KAHOOLAWE, the COLORADO grounded on an uncharted pinnacle off the western end. She was badly holed on the port side forward, and the keel was broken. However, the Navy Yard succeeded in repairing her in time to sail with her group. LST 29 and LCI 79 grounded during operations and had to be hauled off and towed back to PEARL HARBOR. LST 246 struck an LVT and damaged herself rather severely.

3. Upon conclusion of the rehearsal the units of the Northern Attack Force returned to various ports of the HAWAIIAN Area for a short rehabilitation period. During the rehabilitation period in PEARL HARBOR a disastrous fire was caused by an explosion of chemical mortar ammunition on LST 353. It spread rapidly and caused the complete destruction, by burning, of the following LSTs: 39, 43, 69, 179, 353 and 480. LSTs 39, 179 and 480 were causeway loaded. LSTs 43, 69 and 353 were carrying LCTs 961, 983 and 963 respectively. Fortunately there were five uncommitted LSTs and extra LCTs, and by a slight reduction in the lifts for the GARRISON FORCES, scheduled sailings for the FORAGER OPERATION were met.

4. The Southern Attack Force conducted training exercises May 23 - 30 in the SOLOMONS Area, with a four day rehabilitation period in the same area.

[redacted]

ENCLOSURE (A)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

NARRATIVE OF THE OPERATION

5. The Joint Expeditionary Force Reserve conducted training exercises in MAALAEA BAY, MAUI, T. H. from May 20 to 24. Upon completion they returned to various HAWAIIAN ports.

II. MOVEMENT TO MARSHALLS AREA

6. The movement of Task Force 51 from embarkation points to the MARSHALLS was made in accordance with Section (C) of the main part of this report. Prescribed training exercises were held enroute.

III. LOGISTIC SUPPORT IN MARSHALLS AREA

7. Tankers, Provision Store Ships, Ammunition Ships, Water Barges, Reefers, etc., were in the three staging points, ENIWETOK, KWAJALEIN and ROI. Vessels were required to fuel, water, and provision to capacity prior to departing from the MARSHALLS Area. Exceptions to the above were: OBBs of Bombardment Group TWO fueled to amounts designated by COMBATDIV THREE, LSTs took no fuel, and LCIs fueled to a draft of 5'8". All vessels including those that are normally self-supporting in water were required to top off to capacity so as to arrive at the objective as nearly full as possible in order to have water to issue to non-self supporting craft. To augment the amount of water available in the MARSHALLS two new fleet tankers, the OKLAWAHA and NIOBRARA carried fresh water in their fuel bunkers. Fueling, provisioning, and watering of the entire FORAGER forces were completed in four days. Minor repairs were also accomplished during this period. The SC 999 was the only vessel that could not depart from the MARSHALLS at the scheduled time. This was due to non-availability of replacement parts for her main engines.

IV. MOVEMENT FROM MARSHALLS TO FORWARD AREA

8. The movement of Task Group 51 from the MARSHALLS to the objective was made in accordance with Section (C) of the main part of this report.

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V. ASSAULT ON THE MARIANAS

(Note: all times and dates are Minus 10 unless otherwise specified)

9. Units of the Northern Attack Force made the final advance

from the MARSHALLS Area to the objective without incident other than a possible submarine contact in latitude 13-10N, longitude 147-00E. It is believed that the Force was undetected, except for the possible Japanese submarine sighting and a possible sighting by a Japanese plane.

10. Attack Group ONE arrived at the point bearing 103°T, distant 115 miles from Point ABALONE at the scheduled time. At 1331 the Approach Plan was executed. The final approach to the objective was made without other incident than a possible submarine sound contact by one of the screen. As the objective was neared several ships reported hearing voices in the water. The rear picket was directed to investigate. Investigation revealed twelve to fourteen Japanese on a raft, presumably survivors of a convoy sunk off SAIPAN by the DOG minus Three Day air strike. Several of these survivors were picked up.

11. The scheduled pre-assault operations commenced on June 1 with a photo coverage mission on SAIPAN and GUAM. The results of this photo reconnaissance were delivered to the Commanders of Attack Groups ONE and TWO on June 6. The bombing from Southwest Pacific bases commenced on June 3, with a bombing strike on PALAU to harass shipping and air installations. Neutralization air strikes were launched June 9 against airfields of PALAU, WOLEAI and YAP. Air interdiction was continued at TRUK, PULUWAT, and SATAWAN. Carrier strikes against SAIPAN, TINIAN, GUAM, ROTA and PAGAN were launched by the Fast Carrier Task Force on June 11, and succeeding days. The principal targets of this strike were aircraft and associated facilities, then ships, the anti-aircraft batteries and the coast defense weapons, to burn cane fields, and furnish late photo coverage of SAIPAN and TINIAN.

12. On June 13, DOG minus Two Day, the fast battleships and destroyers of TF 58 bombarded SAIPAN and TINIAN. Their objective was to destroy aircraft, to render airfields temporarily useless, to destroy coastal defense and AA batteries, and to burn all unburned cane fields lying south of MUTCHO POINT - CHACHA VILLAGE. The Bombardment Group covered Minesweeping Units ONE and TWO while they swept the shelf to the Westward of SAIPAN. The destroyers of this force maintained harassing fire on SAIPAN and TINIAN during the night of June 13 - 14. Air operations were continued against the airfields of SAIPAN, TINIAN, GUAM, ROTA and PAGAN. The first air strike resulted in the destruction of 124 enemy planes in the air and on the ground. It also resulted in the sinking of 13 ships, 10 in the harbor at SAIPAN, and 3 outside. Anti-aircraft fire was light.

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NARRATIVE OF THE OPERATION

13. June 14. A call Patrol of VFs, VSBs and VTBs was maintained over the objective to protect the bombardment and sweeping operations. At dawn, Bombardment Groups ONE and TWO commenced bombardment and interdiction fires on SAIPAN and TINIAN respectively. These fires were continued throughout the day. Their primary targets were coastal defense guns, AA batteries, mobile artillery weapons, enemy defenses and personnel, with particular attention given the defenses near the landing beaches. During this bombardment the BRAINE was hit by a 4.7 inch shell while bombarding TINIAN, killing three men and injuring fifteen. The ship was not seriously damaged. The CALIFORNIA was hit by one projectile from a minor caliber shore battery. One man was killed and nine were wounded. Close supporting fire was furnished the beach reconnaissance made by the Underwater Demolition Teams and the final sweeping of the shelf. No mines were found. The beach reconnaissance gained invaluable information on the landing beaches and their defenses. Much credit must be given these teams as the mission was carried out under very hazardous conditions and in the face of heavy enemy fire. Four men from these teams were killed and five seriously wounded. No obstacles or reef mines were discovered. A considerable number of bunkers were found and 12 sixty foot boats were found anchored off shore as strong points. The teams made sketches of the reefs and beaches, and copies were delivered to the Landing Force on their arrival. Late photographic negatives in large numbers, particularly of beaches, were delivered by plane drop to the Force flagship, and prints delivered by despatch vessels to troops. During the night of June 14 - 15 destroyers continued harassing fire on SAIPAN and TINIAN. The high speed Minesweepers were stationed to prevent movement between SAIPAN and TINIAN, and away from the islands to north and south.

14. June 15. Units of the Northern Attack Force arrived on DOG Day as scheduled. At 0552 CTF 51 ordered "Land the Landing Force." Heavy air strikes and naval gunfire preceded the landing and were continuous throughout the day. The TENNESSEE was hit by two projectiles from a 4.7 inch battery from TINIAN, killing and wounding several men. HOW Hour, initially set for 0830 was delayed to 0840 due to distance from transport areas to the beaches. Landings were made on beaches in the vicinity of CHARAN-KANOA against light initial resistance. Preparation and support fires by surface and air were excellent. Troops met considerable resistance in CHARAN-KANOA and from AGINGAN POINT. By 1000 units were half way to the O-1 line and by 1800 the O-1 line was generally reached. AGINGAN POINT was captured, but fighting was continuing in CHARAN-KANOA. Approximately 20,000 assault troops were ashore. Resistance from organized defenses, counterattacks, and from artillery, mortar, and machine-gun fire was stubborn.

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NARRATIVE OF THE OPERATION

Considerable 6-inch fire was received from TINIAN. Naval gunfire continued throughout most of the night. TF 51 less several transports, LSTs, control craft, and gunfire support vessels retired to the west at 1830. Several enemy planes attacked the Force at 1846 but no damage was sustained. (See Annex (1)). In the afternoon a moderate swell arose, and prevented unloading at night after several LVTs had overturned.

15. June 16. Retirement Groups returned at dawn. Severe fighting continued during the night, and troops withdrew a short distance to seaward during the morning to improve the defense lines, but again attacked about noon. Enemy mortar fire on the beaches interfered with unloading, but did not stop it. Our casualties were heavy. By 1500 our troops had pushed beyond the southern end of the O-1 line. The bulk of reserves were committed and at 1915 RCT 165 (27th InfDiv) was landed. The GILLER and the SHAW destroyed 5 small AKs north of SAIPAN who had not gotten the news of our presence. The MELVIN and WADLEIGH attacked an enemy submarine and claimed a possible sinking. (See Annex (2)). Other contacts were reported but failed to develop. Night retirement was again ordered but several transports and LSTs remained for unloading as well as combatant ships for night firing. Swell conditions were rather bad, and greatly retarded the landings. Continued reports of the advance of the enemy fleet led to the execution of the Major Battle Plan, as detailed in the main report.

16. June 17. The enemy was very active during the night. A strong counter-attack on the left flank at 0300 was repulsed and 31 enemy tanks destroyed. Our morning attack supported by air, surface, and artillery bombardment was made against heavy resistance but pushed steadily ahead. The 27th InfDiv was committed on the right flank and at 1500 RCT 165 reached ASIITO AIRFIELD. The beaches were nearly free from mortar fire, but poor beaches and surf conditions retarded unloading. Occasional fire was received from TINIAN. At 1510 a TBF made a crash landing within our lines on CHARAN-KANOA AIRSTRIP. The plane was destroyed but the crew saved. Five PBMs arrived this date and night sector searches were made to detect the enemy fleet. (Note: This number gradually increased until five squadrons were present, based on 6 tenders, and using the TANAPAG seaplane base for overhauls and checks.) At 1800 several enemy planes attacked. (See Annex (1) for results). At 1950 Carrier Support Group TWO was attacked by an unreported number of bombers. The FANSHAW BAY sustained one bomb hit and proceeded to ENIWETOK. Several enemy planes were destroyed and others damaged. The PHILIPS was hit by two 8-inch shells from the vicinity of GARAPAN. Damage was not severe and she remained in action. The Retirement Groups proceeded eastward in accordance with the Major Battle Plan.

NARRATIVE OF THE OPERATION

17. June 18. At 1000 our attack, preceded by artillery, naval gunfire and air support, advanced rapidly. The 27th InfDiv secured ASLITO FIELD, and the 4th Marine Division reached the southern edge of MAGICIENNE BAY. Resistance was stubborn and several enemy counter-attacks were repulsed. Transport escorts fueled from Oiler Task Units. At 1650 an Oiler Group was attacked by 10 planes. The NESHANIC and SARANAC sustained hits causing considerable damage and a number of personnel casualties.

18. June 19. A predawn enemy amphibious attack in boats from south GARAPAN was repulsed by LCIs and LVTs, sinking 13 loaded boats. By 1800 our troops controlled the area south of the general line RED BEACH ONE southeast to southwest shore of MAGICIENNE BAY, except NAFUTAN POINT. Retirement Groups continued to operate to the eastward. Bombardment Group ONE fueled in this area. Carrier Support Group ONE, and Western Landing Group at the objective, at 0620, were attacked by enemy planes but no damage was sustained. Several enemy planes were shot down over SAIPAN. At 1000 a delayed message was received from the PBM search plane reporting sighting the enemy fleet to the westward during the night. Additional assault shipping was dispatched to the objective for unloading.

19. June 20. Troops continued to advance against stubborn opposition. The right flank advanced to the center of MAGICIENNE BAY shore line. The last elements of the 27th InfDiv were landed. CHARAN-KANOA Airstrip and ASLITO FIELD were reported operational for emergency landings. RCT 106 landed. YELLOW BEACH THREE was opened to traffic and unloading was steadily improving. UDTs commenced clearing mines from WHITE BEACH ONE. Assault shipping as unloaded was dispatched to ENIWETOK with suitable escorts. Dawn and dusk air strikes by our Carrier Groups hit GUAM, ROTA and TINIAN FIELDS. Most of the transports still having loads arrived from the Eastern Retirement Area. Artillery observation planes (OYs) started operation from CHARAN-KANOA Airstrip.

20. June 21. Heavy fighting continued ashore supported by close air, naval gunfire and artillery fire. The unloading rate increased as beach and tide conditions improved. The escort Carrier Units made dawn and daylight strikes on TINIAN, GUAM and ROTA. Garrison Group ONE departed from ENIWETOK for SAIPAN. Southern Attack Force units and a few of the Northern Attack Force continued operating in Eastern Retirement Area. Unloading continued on a 24-hour basis except for periods of air alerts.

21. June 22. Patrols, during the night, searched up to 1000 yards in front of our lines meeting no opposition. At 0112 enemy planes were approaching. Flash RED was ordered and the smoke plan was executed. Twelve enemy bombers attacked the forces at

SAIPAN, dropping bombs on shore and straddling the CLAY in the Transport Area. No damage was inflicted. The air alert continued until 0200. Troops attacked in the early morning and advanced steadily against continuing stubborn resistance. By 1800 they controlled the island south of the line GARAPAN-TAPOTCHAU-MAGICIENNE BAY except for NAFUTAN POINT where RCT 105 encountered stiff resistance. At 1128 the NEWCOMB attacked an enemy submarine and claimed a positive sinking. (See Annex (2)). At 1242 the TENNESSEE and CALIFORNIA with escorts departed for ENIWETOK to replace ammunition. The 19th Army Fighter Squadron (P47s) landed on ASLITO FIELD and assumed responsibility for the CAP. At 1734 the CAP of Attack Group THREE destroyed an enemy plane 45 miles east of SAIPAN. A low flying enemy plane launched a torpedo which struck the MARYLAND forward. She proceeded to PEARL HARBOR the next day, via ENIWETOK. BEACH GREEN was shelled at 2324 by enemy batteries on TINIAN and LST 119 was holed at the water line.

22. June 23. Enemy planes approached several times at a high altitude; they did not attack ships, but dropped bombs on the airfield, damaging several planes. Enemy elements were active during the night, launching minor counter-attacks which were repulsed. Dawn air observation disclosed considerable enemy activity in GARAPAN TOWN and the northern area. Air strikes and naval and artillery gunfire was placed on these targets. At 0518 (-11) Garrison Group TWO with escorts departed from ENIWETOK for SAIPAN. The remaining elements of Fighter Squadron 19 landed on ASLITO FIELD at 0900. A reorganization of troop lines placed the 4th MarDiv on the right, the 27th InfDiv in the center and the 2nd Mar Div on the left. At 1005 the attack, supported by air, naval gunfire and artillery moved forward rapidly. Resistance stiffened and the advance was held up at 1300. A photo reconnaissance over GUAM at 1114 revealed considerable activity. The carriers of a special Carrier Unit ferrying planes to the MARIANAS were attacked in the Eastern Operating Area at 1205 by four enemy planes. Carrier Task Group ONE launched an air strike against PAGAN at 1230. The unloading of transports was progressing at a satisfactory rate. For the night retirement, only vessels required for unloading remained at the objective.

23. June 24. At 0030 two small groups of enemy planes approached the transport area. Flash RED was ordered and the Smoke Plan was executed. Bombs were dropped in the inner anchorage. The PHAON, LST 222, PCS 1042, LCT 998 and PCS 1461 suffered personnel casualties and minor damage. Air bombardment, NGF and arty preceded the 0800 troop attack which moved forward rapidly. Carrier Task Group FOUR made a strike on IWO JIMA with excellent results. CVE fighter and bomber sweeps over TINIAN and ROTA destroyed enemy targets. The transports did not retire for the

night, nor did they retire thereafter but remained at anchor. At 1925 three enemy planes approached undetected and dropped bombs on the beach, causing only minor damage. Flash RED was ordered and the Smoke Plan was executed. From 1925 to 2208 transports and shore activities were intermittently under air attack. SAIPAN and TINIAN were kept under harassing and illumination fire.

24. June 25. A coordinated troop attack at 0730 was supported by air, naval and artillery units. The 2nd MarDiv advanced to the outskirts of GARAPAN and captured the top of MT. TAPOTCHAU. The 4th MarDiv advanced rapidly while the 27th InfDiv met heavy resistance in the difficult terrain in their zone. At 1000 Garrison Group ONE arrived at SAIPAN. The 319th Fighter Group with the 19th and 73rd Fighter Squadrons and a detachment of the 6th Night Fighter Squadron were now based on and operating from ASLITO AIRFIELD. Garrison Group ONE arrived at SAIPAN at 1000. Carrier Task Group THREE made a heavy bombing attack on GUAM and ROTA in the afternoon. At 1700 Fire Support Group TWO with CruDiv 9 and escorts left for ENIWETOK to replenish ammunition. Reserve Group ONE retired to the westward for the night. Combatant ships provided cover from the westward and CVEs from the eastward. The BANCROFT reported 11 personnel barges moving off TINIAN TOWN which she dispersed by gunfire. The unloading of all Assault Shipping was completed on this date. Since DOG Day approximately 75,000 tons of supplies and 60,000 troops were landed.

25. June 26. Enemy positions were again under naval and artillery bombardment during the night. At 0225 LCI 438 and LCI 456 sank one enemy barge and damaged another one trying to come out of TANAPAG HARBOR. LCI 438 had one man killed and two men wounded, and LCI 456 had two men wounded. Both vessels received some damage. One LCI reported seeing torpedoes. Later, a POW said at least three torpedoes were fired at our ships this night. Troop advances during the day were slow against stubborn resistance and difficult terrain but by 1800 approximately half of SAIPAN was in our hands. Two sizable pockets of resistance were bypassed in the advance and were later liquidated. ASLITO AIRFIELD strip was lengthened to 4500 feet and widened to 300 feet. Equipment was moved to KAGMAN PENINSULA to start an airfield. Garrison Group TWO arrived at SAIPAN at 0800. Cruisers and escorts retired at 1830 to cover positions to the west. Ships bombarded both SAIPAN and TINIAN during the day and night. Enemy planes approached SAIPAN at 2040. Flash RED was ordered and the Smoke Plan executed. At 2059 parachute flares were dropped and at 2318 an enemy plane crashed in the anchorage after hitting the MERCURY in the superstructure with a torpedo, and then striking her jumbo boom. The area was under intermittent air attacks from 2059 to 0030.

Carrier Support Group ONE in the operating area was under air attack; two torpedoes were launched at the CVEs but missed. Two screening DDs shot down one attacking plane. Radar pickets and the radar guard system of the screen were modified to facilitate the early detection of low flying enemy planes.

26. June 27. The air alert continued until 0030. Enemy forces were active on all fronts during the night. A breakthrough from NAFUTAN POINT was effected by the enemy and at 0230 enemy personnel infiltrated ASLITO FIELD. They set fire to one P47 and damaged three others. Another group attacked Hill 500 in the 4th MarDiv sector but were repulsed with heavy losses. The advance was resumed at 0630 meeting strong resistance on the left flank and the center of our line. The 4th MarDiv on the right advanced rapidly. Naval bombardment and P47s destroyed many targets on SAIPAN and TINIAN. MinRon Four completed the sweeping of MAGICIENNE BAY, having found about 25 contact mines some with very shallow settings. Carrier Task Group FOUR struck ROTA FIELD at 1600. At 1845 enemy planes were approaching; Flash RED was ordered and the Smoke Plan executed. The ships and units ashore were intermittently under air attack from 1845 to 0030. At 2000 five to eight bombs were dropped and at 2232 15 bombs fell in the transport area.. At 2352 some bombs were dropped on ASLITO FIELD. No damage was sustained from any of these bombings. Raids on GUAM, ROTA and PAGAN were intensified to minimize enemy air raids. The FAST CARRIER TASK FORCE was requested to provide photo coverage of GUAM and to maintain night fighters over GUAM and ROTA during moonlight periods. Considerable quantities of smoke materials were consumed and immediate re-supply was requested.

27. June 28. Vigorous anti-sniper patrols from the NT&LF Reserve and the V Reconnaissance Battalion operated in the Garrison Area to eliminate enemy personnel. Troop advances were slow but organized resistance was overcome on NAFUTAN POINT. The usual dawn sweeps were made over TINIAN and SAIPAN and a straffing attack at 0800 hit enemy personnel on north SAIPAN. The enemy jammed our radio frequencies from 0700 to 0900. Our procedure was followed in general but there were no indications that our authenticator system was compromised. Ten thousand feet of LISP-2 net were laid by the KEOKUK off the entrance to TANAPAG HARBOR. Air strikes were made on TINIAN at 0940 by four P47s, at 1040 by 2 VTs and at 1600 by 16 VFs and 8 VTs. Three well camouflaged operational aircraft were seen in the canefields on TINIAN and were destroyed. Five VTs attacked targets on SAIPAN at at 1040 and at 1543. Twelve P47s strafed MARPI POINT AIRFIELD. Eight P47s at 1123 and 20 P47s at 1645 struck ROTA targets. At 2040 enemy planes were approaching; Flash RED was ordered and the Smoke Plan executed. From 2040 to 2137 our forces at SAIPAN were

under intermittent air attack. ASLITO FIELD AA fire shot down one enemy plane, seen to fall, and claimed two others.

28. June 29. Our attacks this date made only slight advances. Air sweeps were made over TINIAN and SAIPAN AIRFIELDS at 0610, 0730, 1115 and at 1400. VFs and VTs struck designated targets on TINIAN. At 1600 seventeen P47s struck ROTA AIRFIELD definitely cratering the field. Many gun positions were destroyed by these attacks reducing AA fire considerably. 75 land mines were removed from PURPLE BEACHES by demolition personnel and UDTs. 15 ships were maintained in the area for fire support. Direct support was difficult due to irregular front lines. At 1830 Covering Groups ONE and TWO retired to the westward. Carrier Task Group FOUR maintained a night fighter patrol over ROTA from dark until 2300. Submarine torpedoes were fired at one of the escort carrier groups in the northwestern area. Their operating area was shifted to the eastward. All vessels not due to return to PEARL HARBOR were ordered to replenish their ammunition supply. No enemy air attack was made during the night.

29. June 30. At 0700 the 2nd MarDiv and the 27th InfDiv resumed the attack with the 4th MarDiv holding their positions. The attack met strong resistance. Air and naval bombardment gave excellent support destroying numerous targets. During the day 40 P47s attacked targets on SAIPAN and TINIAN and 48 VFs and 12 VTs provided close support for the ground assault. At 0900 (-11) Carrier Task Group TWO and at 1300 (-11) Carrier Task Group ONE sortied from ENIWETOK for a strike on IWO JIMA. ROTA was hit by an air strike from ASLITO FIELD at 1500. The INDIANAPOLIS and the LOUISVILLE placed an intense bombardment on TANAPAG HARBOR and its defenses. The BIRMINGHAM continued to fire on TINIAN. ASLITO AIRFIELD was designated ISELY FIELD in honor of the late Commander Robert H. ISELY, USN, who lost his life attacking this field then under enemy control. Carrier Task Groups THREE and FOUR struck ROTA and GUAM. At 1830 Covering Group ONE with cruisers and destroyers, less fire support ships retired for the night. At 1949 enemy planes were approaching, Flash RED was ordered and the Smoke Plan executed. From 1949 to 0139 forces at SAIPAN were under air attack. One enemy plane was destroyed by our night fighters. At 2310 bombs fell in the GARAPAN Area.

30. July 1. Troop advances were small. Movement over difficult terrain was held up by enemy troops in caves and bluffs. The 2nd MarDiv and 27th InfDiv attacked at 0730 with the 4th MarDiv holding their front line positions. Garrison Forces assumed control of all Shore Party activities. The usual dawn sweeps were made on SAIPAN, TINIAN and ROTA. VFs carried out bombing and strafing

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missions on SAIPAN and TINIAN and completed a photo reconnaissance of TINIAN BEACHES. Fire Support Ships continued with call fire support. Covering Group ONE again retired to the westward.

31. July 2. At 0053 enemy planes were approaching, Flash RED was ordered and the Smoke Plan executed. From 0053 to 0215 forces at SAIPAN were under intermittent air attack by about 5 planes. These planes approached at low levels using the land mass to conceal their approach. One plane was shot down by a screening destroyer, and one crashed while flying low to escape detection. Five enemy aviators from this plane were captured. No bombs were dropped. Troop patrols during the night entered GARAPAN TOWN and were active on all division fronts. Advances by the 2nd MarDiv and the 27th InfDiv were moderate, varying from 500 to 1500 yards. During the morning enemy troops were reported withdrawing to the north. Great quantities of enemy supplies were seized in caves and dumps. The CHARAN-KANOA Railway was placed in operation to facilitate supply to ISELY FIELD. At 0700 a fleet oiler arrived at SAIPAN to fuel screening vessels and fire support ships. Numerous air strikes were made on SAIPAN, TINIAN and ROTA. Covering Group ONE again retired to the westward. Naval fire support ships continued to bombard SAIPAN and TINIAN. A DD from the transport screen sank one enemy landing craft and drove another one aground off MARPO POINT, TINIAN.

32. July 3. Four P47s made a sweep at 0530 on ROTA. The troop attack at 0800 made rapid advances. Two strong points held up units of the 2nd MarDiv and the 27th InfDiv for a short period. Reports indicated the possibility of a large scale enemy air attack and Carrier Support Group ONE was ordered to maintain all available aircraft on an alert status. A total of 52 sorties from Carrier Task Group FOUR hit ROTA. The field had been repaired. Carrier Task Groups ONE and TWO hit the BONINS. The attack was a complete surprise, but the enemy defense was strong and well conducted. Many enemy aircraft were destroyed. At 1846 GARAPAN was captured by the 2nd MarDiv. A total of 2 cruisers and 14 destroyers were used in fire support missions on SAIPAN. No enemy air attacks were made.

33. July 4. During the night a strong enemy counter-attack hit the CP of RCT 165 but was repulsed. The 2nd MarDiv, in the 0730 attack advanced rapidly into the TANAPAG HARBOR Area. The 27th InfDiv advanced slowly against moderate resistance while the 4th MarDiv advanced rapidly against light opposition, until reaching Hill 721. This was strongly defended. Four P47s hit ROTA at dawn and on returning executed local strafing missions. At 0730 a fleet oiler, an ammunition resupply ship and an XAP arrived at

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SAIPAN. Numerous air strikes were made on SAIPAN and TINIAN targets during the day. Fire support ships continued to bombard SAIPAN and TINIAN in support of ground operations. The Transport Screening Group was ordered to be prepared for an immediate concentration of destroyers to meet any fast enemy surface raids. At 2030 fire support ships were alerted for a possible enemy plane evacuation attempt from MARPI POINT. No enemy air attacks were made during the night.

34. July 5. Meager enemy activity was reported for this period. Troop lines were reorganized placing the 4th MarDiv on the right, the 27th InfDiv on the left and the 2nd MarDiv in Reserve. A coordinated attack was launched at 1300. The 4th Mar Div advanced 1800 yards against light resistance. During the day 19 VF, 8 P47 and 14 VT attacks were made on SAIPAN targets and 24 VFs, 7VTs and 12 P47s struck GUAM objectives. Fire support ships continued to fire on both SAIPAN and TINIAN. The boat passage off RED BEACH THREE was cleared to seven feet and a five foot depth was reported at the Government Pier. At 1957 enemy planes were approaching, Flash RED was ordered and the Smoke Plan executed. From 1957 to 2040 the forces at SAIPAN were under attack by 3 to 5 planes. From the lack of aggressiveness, these planes were probably attempting air evacuation of key personnel. Night Fighter interception was unsuccessful. Covering Group ONE retired to the westward.

35. July 6. Forces at SAIPAN were alerted from 0020 to 0040 against an enemy air attack. Flash RED was ordered and the Smoke Plan executed. Only one enemy plane was involved, which apparently took off from MARPI POINT FIELD. Clearance of TANAPAG HARBOR was commenced by 2 AMs covered by a screening DD. One mine was swept in the channel. Three concentrations of enemy troops, one group reported embarking in barges, were dispersed by artillery fire during the night. The 4th MarDiv continued a rapid advance. The 27th InfDiv continued to meet strong resistance. SAIPAN and TINIAN Boat Pools reported at 0800 to CSNA at SAIPAN. A total of 18 VF and 24 P47 attacks were made on SAIPAN support missions and 8 P47 attacks were made on TINIAN. The Commander of Minesweeper and Hydrographic Survey Group reported a 150 foot channel had been swept from TANAPAG CHANNEL to the northwest docks. The Service and Salvage Group proceeded clearing wrecked barges from the harbor and GARAPAN Pier. Seven ships of the Second Echelon of Garrison Shipping arrived at SAIPAN. At 1800 12 P47s made a sweep on ROTA. Enemy aircraft were reported approaching at 1955. Flash RED was ordered and the Smoke Plan executed. The forces at SAIPAN were intermittently under air attacks from 1935 to 0110. Two enemy planes were shot down by night fighters from the FAST CARRIER GROUPS. One enemy plane trailing Covering Group TWO was shot down

by a screening DD.

36. July 7. At 0510 an enemy force estimated at 3000 troops launched a suicidal attack on the positions of the 105th Infantry. The 1st and 2nd Battalions bore the brunt of the attack and were completely overrun, as were also the guns of one battery of the 10th Marines. At 1100 remnants of these two battalions withdrew to the vicinity of TANAPAG POINT and sought refuge on the beach. Destroyers and small craft dispatched by the Task Force Commander removed 60 survivors and 1 POW from the reef. The attack was stopped at 1130 by elements of the 10th Marines, the 3rd Battalion 105th Infantry and the 106th Infantry. An assault was launched by our troops at 1155 and at 1800 our troops had regained most of the ground lost. Our casualties were heavy, but many enemy were killed. The 4th MarDiv continued to advance rapidly for a gain of 1200 yards. At 0600 work was begun on the seaplane ramps in TANAPAG HARBOR. At 0730 the fast Battleships of TF 58 arrived at SAIPAN for a short stay. During the day 17 VFs carried out support missions on SAIPAN and attacked targets on TINIAN and GUAM. At 1623 COMFIFTHFLEET set July 21 as WILLIAM DAY for the attack on GUAM, and July 24 as JIG DAY for the attack on TINIAN. At 1945 enemy planes approached from the southwest. Flash RED was ordered and the Smoke Plan executed. From 1945 to 0007 forces at SAIPAN were under intermittent air attack. Three enemy planes were destroyed. 25 bombs were dropped near ISELY FIELD but no damage was sustained. This was the last enemy air attack on our forces during the Capture and Occupation Phase of the operation.

37. July 8. Ground patrols operated as far as 1500 yards in advance of their front lines during the night encountering only scattered points of resistance. Several minor counter-attacks were repulsed. The 2nd MarDiv relieved the 27th InfDiv (less RCT 165) at 0630. The advance to the north by the 2nd and 4th MarDivs was against light resistance from isolated enemy groups. During the day P47s supported the assault on SAIPAN and attacked TINIAN targets. Six LSTs were made available to COMSERON 10 to haul fog oil, which was becoming critically low, from the MARSHALLs. At 1200 CruDiv TWELVE commenced the bombardment of GUAM in accordance with the softening up program.

38. July 9. Concentrations of enemy in caves and on ledges were fired on and attacked by air, sea and ground elements. Advances were rapid and at 1615 it was announced that the island was captured and that all organized resistance had ceased. At 0930 MinRon FOUR swept area 4, north of MAGICIENNE BAY, sweeping 15 mines. At 1315 four resupply ships including one loaded with ammunition arrived at SAIPAN. Fire support ships fired counter-battery and call fire missions on the TANAPAG Area against enemy

troops apparently seeking escape. For several days following, enemy troops were searched out on wrecked ships in the harbor and hiding along the waterfront. Bombardment Unit THREE and Carrier Task Group ONE struck GUAM.

39. July 10. Small groups of enemy troops made forays against our troops during the night and were killed or dispersed. The GUEST had a definite submarine contact at 0300. Forty depth charges were dropped resulting in a small quantity of oil. Contact was not regained. (See Annex (2)). Assault troops continued to mop up remaining enemy on SAIPAN and sunken ships in the harbor were searched for survivors. LCIs were assigned to prevent any future boarding. At 1000 a formal flag raising was held on SAIPAN. At 1200 CruDiv TWELVE commenced the bombardment of GUAM. Carrier Task Groups ONE and TWO dropped 40 tons of bombs on GUAM targets. XXIV Corps artillery heavily shelled TINIAN targets.

40. July 11. Enemy activity from this date forward was confined to scattered encounters. Patrols were tracking down these troops as rapidly as possible. The SS ROCKLAND VICTORY with ammunition arrived at SAIPAN. During the day 16 F47 missions were flown over TINIAN. All shore artillery was concentrated at the southern end of SAIPAN for bombardment of TINIAN. V Corps Reconnaissance personnel and UDTs reconnoitered WHITE BEACH ONE between 2030 and 0300 covered by two DDs. CruDivs 9 and 12 were made available to the Southern Attack Force Commander for the WILLIAM DAY bombardment and the TENNESSEE and CALIFORNIA were made available for bombardment on WILLIAM minus One Day to the afternoon of WILLIAM DAY. Heavy naval and air bombardment of GUAM was continued. This was maintained until WILLIAM DAY. G. R. TWEED RM1/c USN was rescued from GUAM by a destroyer. TWEED had been hiding on the island since the Japanese occupation.

41. July 12. Rehabilitation, reorganization and reequipment of all assault troops on SAIPAN was commenced. Mopping up continued. At 0800 a fleet oiler arrived at SAIPAN from the Eastern Operating Areas. At 1020 8 F47s struck TINIAN targets. A dry provisions ship arrived at SAIPAN. The preliminary survey of TANAPAG HARBOR was completed and salvage operations of sunken Japanese ships were proceeding. Air and naval units continued heavy bombardments on GUAM. Fire Support ships and aircraft from SAIPAN made strikes on TINIAN.

42. July 13. The 6th Marines supported by artillery fire, naval gunfire and armored LVTs captured MANIAGASSA ISLAND at 1145. The fast battleships of TF 58 with CruDiv SIX arrived at SAIPAN. Air bombardment, naval gunfire and Corps Artillery continued attacks on TINIAN targets. Carrier air strikes

and naval bombardment carried out scheduled strikes on GUAM. Combatant ships, less fire support units retired.

43. July 14. Our situation on SAIPAN remained unchanged. At 0730 an ammunition resupply ship arrived at SAIPAN. At 0945 12 P47s launched bombs and rockets on TINIAN Two PBYs at 0940 attacked shipping at IWO JIMA. COMINRON FOUR reported at 1455 that all areas around SAIPAN inside the 200 fathom curve had been swept. Off-shore reconnaissances were conducted off ASAN and AGANA on GUAM. Reconnaissance units landed on GUAM Beaches to determine the defenses.

44. July 15. Mopping up operations and rehabilitation and reequipment continued. Loading for the assault on TINIAN commenced. All NT&LF Artillery larger than 75 MM passed to the control of the XXIV Corps to intensify the preparatory fire on TINIAN. At 0600 2 OBBs and 4 DDs arrived at SAIPAN for ammunition replenishment. Air strikes and naval gunfire were continued on GUAM targets. Air strikes were centered on AGANA and OROTE AIRFIELDS. Shore batteries fired on UDTs making a daylight beach reconnaissance on GUAM. These were silenced by naval gunfire. Combatant ships less fire support ships retired at 1830.

45. July 16. There was no change in the situation on SAIPAN. At 1100 an ammunition resupply ship arrived at SAIPAN. At 1645 14 P47s struck PAGAN. Tractor Group ONE with 8 LCIs departed from SAIPAN for GUAM. Resupply of smoke materials was received at SAIPAN. Carrier Task Group ONE struck ROTA with 64 rockets. Carrier Task Group TWO dropped 28 tons of bombs, 24 rockets and 20 small incendiary clusters on GUAM. Combatant ships less fire support ships retired at 1830.

46. July 17. Bombardment Group ONE arrived at SAIPAN. At 1224 CruDiv 6 and DesDiv 69 departed from SAIPAN for GUAM to rendezvous with Fire Support Unit ONE. At 1500 12 P47s hit AA positions on TINIAN. At 1655 14 P47s struck PAGAN. Bombardment Unit ONE was dissolved and the bombardment groups and support units were reorganized. Air and naval forces continued strikes on GUAM particularly on all beaches and coastal defense guns. Combatant ships less bombardment groups retired at 1830.

47. July 18. Four F4Us struck PAGAN at 0516 with bombs and two strafing runs on the airport facilities. At 0445 12 P47s strafed PAGAN FIELD. At 0700 the APACHE left for GUAM to attempt the salvage of LCI 348 which had grounded while covering operations of UDTs while under fire. The APACHE pulled the LCI off the reef and towed it to SAIPAN for repairs. At 0800 sweeping operations were started in the southern portion of SAIPAN channel under the protection of two DDs. No mines were encountered. At 1610 12 P47s bombed PAGAN. Artillery and air strikes were continued

on TINIAN targets. At 1900 combatant ships less Fire Support Ships retired. At 2310 a submarine contact was made; submarine was attacked by the WYMAN who reported a definite sinking. (See Annex (2)). UDTs during the night removed beach obstacles on GUAM beaches. All beaches and adjacent areas on GUAM were heavily shelled by naval gunfire and air bombardment. Carrier Task Groups ONE and TWO dropped 135 tons of bombs and 24 rockets on GUAM. The beaches were strafed from BANGI POINT to AGAT.

48. July 19. 23 P47s struck TINIAN targets during the morning. At 1500 12 P47s launched 30 rockets at north TINIAN targets and railroad yards on TINIAN. XXIV Corps Artillery continued harassing fires on TINIAN TOWN and YELLOW BEACHES. Excellent progress was made by UDTs on clearing the beaches of obstructions and blasting of reefs on GUAM. Heavy close range gunfire and aerial bombardment were continued on GUAM. 402 tons of bombs and 40 rockets were placed on GUAM targets by Carrier Task Groups ONE, TWO, THREE and FOUR.

49. July 20. ComBatDiv 7 with escorts arrived at SAIPAN at 0900. KAGMAN FIELD on SAIPAN was placed in operation. At 1700 CTF 51 departed from SAIPAN for GUAM with the CUSTER and escorts. The Commander of the Southern Attack Force set 0830, July 21, as H-HOUR for the attack on GUAM. Continuous interdiction of reefs and shore defenses was continued on GUAM. Carrier Task Groups ONE, TWO, THREE and FOUR dropped 352 tons of bombs and 64 rockets on GUAM targets. Elements of the 2nd MarDiv began embarking in TransDivs 7 and 30 for the TINIAN assault. Six fire support ships bombarded TINIAN starting at 1000. TINIAN targets were hit by 28 P47s during the day. At 1500 the loading of LSTs for the TINIAN assault was completed.

50. July 21. All units involved in the initial assault on GUAM approached as specified in the Approach Plan. Attack Group THREE and the Northern Transport Group with CTF 53 in the APPALACHIAN arrived in the Northern Transport Area at 0600. On arrival at GUAM CTF 51 in the ROCKY MOUNT remained in the Northern Transport Area. Tractor Group THREE arrived in the Northern Transport area at 0600. Attack Group FOUR and Tractor Group FOUR arrived in the Southern Area at 0615. Pre-assault bombardment was conducted on schedule. At 0830 H-HOUR (0830) the 3rd MarDiv reinforced, landed on beaches south of OROTE and the 1st ProvMarBrig landed on beaches south of [illegible]. All assault units and their weapons including tanks and artillery landed during the day. Initial opposition was nominal except for considerable artillery fire on the beaches, but stiffened as the troops advanced. Carrier Task Groups ONE, TWO, THREE and FOUR dropped 305 tons of bombs and 315 rockets and made strafing runs on GUAM targets. RCT 305 (77th InfDiv) landed during the afternoon in support of the 1st ProvMarBrig. By 1800 the 3rd

MarDiv had secured a narrow beachhead and the 1st ProvMarBrig had secured their O-1 line. Mortar fire was heavy, particularly on the 3rd MarDiv. Unloading continued throughout the night. Illumination and harassing fires were supplied by fire support ships. Combatant ships, less fire support units, and all other vessels except TD 24, the APPALACHIAN and screen, retired. ComSeron 12 (Commander Harbor Stretcher Group) in the WILLIAM WARD BURROWS arrived at SAIPAN. Special call fires on TINIAN targets were continued by a cruiser and five destroyers. Night harassing fire was continued and aerial and surface bombardment was intensified. During the afternoon 18 P47s released wing and belly tanks containing NAPALM on TINIAN targets.

51. July 22. At 0700 Carrier Task Group ONE with the YORKTOWN and HORNET and Carrier Task Group TWO with the WASP arrived at SAIPAN for bomb replenishment. Numerous enemy counter-attacks were launched on GUAM against both the Northern and Southern Forces, but were repulsed after the enemy suffered heavy casualties. Vigorous attacks were made by our troops during the day, and by 1800 IT. AIFAN, BANGI POINT, AGAT, the AGAN-PITI ROAD and half of CABRAS ISLAND were taken. Interdiction and harassing fire was conducted during the night by naval gunfire. Mortar fire on the northern beaches interferred with the unloading. Air, naval and artillery gunfire aided in checking a dawn counter-attack. At 0700 TransDivs 18 and 28 arrived off AGAT BEACHES. Carrier Task Group TWO dropped 63 tons of bombs and 80 rockets on GUAM targets. Anti-sniper patrols continued to operate on SAIPAN. Work on defenses and base development of SAIPAN continued satisfactorily. During the night two destroyers furnished harassing fire on TINIAN TOWN and on YELLOW BEACHES. At 0600 ComBatDiv 2 with 2 OBBs and 4 destroyers and 3 cruisers and 5 destroyers arrived at SAIPAN and reported to CTF 52. The 4th MarDiv commenced loading tanks and ICMs for the TINIAN assault. The intense bombardment of TINIAN was continued. A squadron of B25 bombers became operational at FAGMAN POINT FIELD, and were assigned the duty of attacking TINIAN, providing air cover for fleet units in the MARIANAS, and the neutralization of ROTA and TACAN. White Beach 2 was reconnoitered by LCDTs and [illegible] Reconnaissance Company.

52. July 23. The enemy attempted many infiltrations of our lines on GUAM during the night. The 1st Provisional Brigade plus the 305th RCT attacked towards OROTE PENINSULA, making good progress against stiff resistance. The 3rd MarDiv met stiff resistance on its left and center but the right flank elements secured CABRAS ISLAND and the PITI NAVY YARD. At daylight RCT 306 (77th Infantry Division) began landing. Mortar and machine-gun fire continued to impede the advance and to interfere with unloading on the beaches. Naval gunfire and air support continued to furnish close supporting fires and to harass the enemy rear areas. Ships required for unloading and their screen remained during the night,

All other ships less fire support units retired from GUAM. Two destroyers firing on YELLOW and WHITE BEACHES on TINIAN covered a reconnaissance by UDTs and elements of the V Corps Rcn. Bn. All assault troops and equipment had been embarked for the TINIAN assault. The XXIV Corps Artillery intensified the TINIAN bombardment. Naval forces conducted the JIG minus One Day bombardment. JIG minus One air strikes were very effective. Combatant ships less fire support units retired from SAIPAN. Commodore William M. QUIGLEY, U. S. Navy, assumed the duties of Deputy Commander Forward Areas, Central Pacific.

53. July 24. The Commander FIFTH Fleet arrived at SAIPAN. ARD 16 arrived at SAIPAN with a load of pontoons. At 1145 20 P47s from ISELY FIELD bombed and strafed ROTA. At 1600 the first large ship docked at the North Pier in TANAPAG HARBOR. Stubborn resistance continued on GUAM. The 3rd MarDiv made negligible advances against strong enemy positions. The 1st ProvMarBrig was relieved by the 77th InfDiv in the zone south of OLD AGAT ROAD, and the Brigade began the attack on OROTE. Heavy naval and artillery gunfire preceded the attack at 1000. LCIs 349 and 456 were hit while strafing OROTE PENINSULA. Minor counter-attacks were repulsed by the three major units during the day. RCT 307 landed over the southern beaches. Harassing and illumination fires were provided by the fire support ships during the night. Naval gunfire and air support continued to render close support. CTF 56 debarked from the ROCKY MOUNT and transferred ashore temporarily. CTF 53 was assigned the additional duty of keeping ROTA FIELD neutralized. At 1800 CTF 51 in the ROCKY MOUNT departed from GUAM for SAIPAN. Pre-HOW HOUR strikes were conducted as scheduled on TINIAN. Heavy preparatory fires were laid by the XXIV Corps Artillery. A diversionary demonstration was made in the vicinity of SUNHARON HARBOR concurrent with the actual landing. HOW HOUR was set at 0740 and at 0746 the 4th MarDiv landed one RCT on each of the two WHITE BEACHES. At 1000 during the SUNHARON bombardment the COLORADO sustained 22 six-inch hits from TINIAN batteries. 17 men were killed and 73 wounded. Later these guns were found to be in caves in the cliffs and had not been picked out from the thousands of photographs studied. The guns were destroyed by close-in naval gunfire. Enemy opposition initially was moderate and all assault troops supported by tanks and 75 MM artillery and one BIT of the 2nd MarDiv were landed during the day. At 1330 the NORMAN SCOTT was hit six times by an enemy shore battery killing 19 men including the Commanding Officer and wounding 47. Heavy air strikes and naval gunfire supported the operations. By 1800 an excellent beachhead was secured.

54. July 25. CTF 51 in the ROCKY MOUNT arrived at SAIPAN at 0700 and assumed the duties of SOPA. CTF 52 retained the responsibility for offensive and defensive surface and air action in this area. The first of the Third Echelon Garrison Shipping for SAIPAN arrived at SAIPAN. At 1250 20 P47s from ISELY FIELD

struck PAGAN. Harassing and call fires were conducted by bombardment groups on GUAM and TINIAN during the night. On GUAM the 3rd MarDiv continued to meet strong resistence on their left flank while the right flank advanced 2000 yards. The first ProvMarBrig continued its attack towards OROTE PENINSULA. Contact was established during the afternoon on the eastern shore of APRA HARBOR by the Northern and Southern Forces. Naval gunfire and air support continued during the day in close support of the troops. A total of 69 tons of bombs were dropped on GUAM targets during the day. Ten DDs remained at the objective to conduct GUAM fire support missions during the night. On TINIAN a strong enemy counter-attack supported by tanks was launched before dawn from the vicinity of ASLEROID IAIE. There were few casualties to our troops but many to the enemy. Naval gunfire destroyed 4 enemy field guns firing on WHITE BEACHES. A total of 106 sorties were flown over TINIAN on bombing and strafing missions. Napalm filled tanks were used with good effect. Naval and artillery gunfire supported the assault throughout the day and night. All transports and assigned fire support units remained in the unloading area. All other ships retired.

55. July 26. At 0700 the CHENANGO arrived at SAIPAN for bomb replenishment, departing that evening for GUAM. Garrison troops on SAIPAN continued anti-sniper patrols. During the night fire support units bombarded ROTA AIRFIELD. Enemy opposition on GUAM increased against the 1st ProvMarBrig and the 3rd MarDiv during the night. Determined enemy counter-attacks struck the 1st Brigade from OROTE PENINSULA and the left of the 3rd MarDiv lines, but were repulsed, although a very few enemy reached the beach. They were buried there. At 1300 CG ST&LF assumed command ashore. The 3rd MarDiv advanced its right flank but was unable to advance other sections of its line. The 1st ProvMarBrig advanced slowly on OROTE PENINSULA. Strong aerial and naval gunfire continued to support the ground assaults. On TINIAN the 2nd MarDiv prior to 0730 relieved elements on the left of the 4th MarDiv. A coordinated attack was launched at 0800. The troops advanced rapidly capturing USHI AIRFIELD at 1000 and MT. IAS50 at 1600. Air strikes and naval gunfire continued to support the operation. Unloading progressed satisfactorily with [redacted] BEACHES operating on a 24 hour basis.

56. July 27. At 0700 a CVE and escorts arrived at SAIPAN for bomb replenishment. At 0800 the new runway on ISLEY FIELD was placed in operation. At 0915 the COLORADO departed for GUAM after completing temporary battle repairs. Little enemy activity occurred during the night on GUAM. The 3rd MarDiv continued the attack against strong resistance as did the 1st Prov MarBrig on OROTE PENINSULA. The 77th InfDiv patrolled the area south of the LE. TENJO-YIIG BAY line and few enemy were encountered. At 0700 Garrison Groups THREE and FOUR arrived at GUAM. ROTA airfield was bombed by Carrier Task Group FOUR. Work on APRA

HARBOR was underway in advance of the capture of OROTE PENINSULA. There was no enemy activity during the night on TINIAN. Artillery and naval gunfire delivered preparatory bombardment for the 0700 attack. The 2nd and 4th MarDivs met light resistance and by 1344 reached the O-4 line. P47s from ISELY FIELD flew 106 sorties over TINIAN. A captured document reported that Major BOYINGTONshot down and captured by the Japanese, was still alive on 7 January 1944.

57. July 28. At 0434 the BRACKETT made a good submarine contact and attacked. 16 seconds after the attack a severe underwater explosion occured. (See Annex (2)). At 0600 the ESSEX and escorts and at 0930 the MIDWAY arrived at SAIPAN for bomb replenishment. The grounded SEA TIGER was refloated at ENIWETOK and towed back to PEARL HARBOR. At 1714 the WYMAN in a submarine attack scored 10 hedgehog hits. Five minutes later, a large underwater explosion occurred and oil and debris rose to the surface. This was considered a definite sinking. (See Annex (2)). Naval units conducted night harassing and interdiction fires on GUAM. The attack was resumed at 0830 by the 1st ProvMarBrig and 3rd MarDiv. Continued strong resistance was met. The 77th InfDiv continued to patrol the southern area and BIT 2/307 occupied MT. TENJO with little opposition. DADI BEACH was cleared of mines and use of this beach was commenced as a major unloading point for garrison and airfield supplies. Practically all assault shipping was unloaded and the 77th InfDiv shipping was 85 percent unloaded. Unloaded LSTs and LCIs were dispatched to ENIWETOK. Carrier Task Group FOUR hit ROTA. The assault on TINIAN was progressing satisfactorily. A CP of the MT&IF was established on TINIAN. Five transports with the First Echelon Garrison Shipping for TINIAN arrived at SAIPAN. The north TINIAN AIRFIELD was placed in operation.

58. July 29. At 0700 four carriers and escorts arrived at SAIPAN for bomb replenishment. The HOLLAND arrived at SAIPAN. Heavy swells commenced building up from a typhoon 200 miles to the westward. Two YOGLs broke their moorings at SAIPAN and went aground off YELLOW BEACH. Salvage operations were commenced. Enemy activity on GUAM during the night was very light. The 3rd MarDiv patrolled 2500 yards beyond their lines contacting no enemy. At 0800 the 1st Provisional Marine Brigade launched their attack and by 1800 had captured OROTE PENINSULA. The 3rd MarDiv and the 77th InfDiv reached the FENI during the day and occupied MT. CHACO, MT. LIUTON and MT. TENJO. The 22nd Marines conducted mopping up operations in SUSAY. Air and naval units continued close support missions on GUAM. A Carrier Group and escorts (TG 53.7) departed from GUAM for ENIWETOK. The unloading and supply situation was considered satisfactory. Work on OROTE AIRFIELD and in APRA HARBOR was proceeding satisfactorily. At 0700 a coordinated attack was launched by the 77th, 3rd and 1st MarDiv

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advance rapidly but the 4th MarDiv met stiffening resistance on the high ground. Reports indicated enemy troops were withdrawing to the southern part of the island. No unloading could be accomplished during the day except by DUKWs and LVTs because of the heavy swells, due to the high wind (25 knots). Five NATS planes were used as ferry service between SAIPAN and TINIAN. A total of 96 P47 sorties were flown this day on TINIAN air support operations. One cruiser and seven DDs remained at the objective for harassing and interdiction fire during the night. All other ships retired.

59. July 30. At 0023 a 60 ton stock pile of dynamite in TANAPAG HARBOR was detonated by enemy personnel. Two Navy sentries and three Japanese were killed. At 0530 8 unloaded LSTs with escorts departed from SAIPAN for ENIWETOK. Carrier Task Groups ONE, TWO and THREE returned to the operating areas from bomb replenishment at SAIPAN. The days' operations were limited to mopping up and in preparing to launch the Third Phase attacks on GUAM. The 1st ProvMarBrig relieved the 77th InfDiv on the FRONT in the southern sector. Their patrols reached TOCOHA and YIGO BAY. The GUAM Garrison Forces initiated work on the Base Development Plan and assumed responsibility for work on the western airfield, harbor development in APRA HARBOR, and the construction of roads and water systems. All assault shipping was unloaded except some 77th InfDiv equipment in two KAPs. The Island Commander, TINIAN, assumed control of the Garrison Forces. Carrier Task Group TWO departed from the MARIANAS to ENIWETOK, and fire support units of TF 53 were reorganized on their departure. During the afternoon one TBF landed on and took off from OROTE PENINSULA AIRFIELD. A coordinated attack on TINIAN was launched at 0745 against continuing stiff resistance. Advances were steady and TINIAN TOWN was captured. At 1340 all unloading was stopped except by LVTs and DUKWs because of the increasing swells. LST 340 broached to while beached on TINIAN. She was badly holed. Salvage operations were commenced. 54 P47 sorties were flown from ISELY FIELD over TINIAN. GURGUAN POINT FIELD was reported operational to 5000 feet.

60. July 31. At 0700 two carriers arrived at SAIPAN for bomb replenishment. A heavy weather retirement plan for the Northern Attack Force was issued by CTF 51. At 1600 CG NT&LF assumed responsibility for all civil affairs on SAIPAN. Mopping up continued on SAIPAN tracking down small enemy groups in caves and isolated ravines. At 0630 the attack on GUAM was launched with the 3rd MarDiv and the 77th InfDiv striking across the island. By 1800 a line had been established to PAGO POINT. During the day naval gunfire support groups were operating on both sides of the island. COMTHIRTYTHIRD in the INDIANAPOLIS entered APRA HARBOR during the day. On TINIAN at 0200 a counter-attack

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against the 4th MarDiv was repulsed. Beginning at dawn an unusually heavy naval, air and artillery bombardment preceded the 0830 attack on TINIAN. Fire support ships fired nearly 6800 rounds of all calibers. The advance moved against stiffening resistance to the high ground between LAIO and HARFO POINTS. Several enemy groups which launched counter-attacks were dispersed by artillery fire. Sweeping operations were begun in TINIAN HARBOR. No moored mines were encountered but many mines were found buried on the beaches. Heavy swells continued to prevent unloading from boats, LSTs, and LCTs.

61. August 1. At 0635 all Scron 12 vessels at SAIPAN were organized as TU 57.14.1. At 0750 seven resupply ships and escorts arrived at SAIPAN. Carrier Task Group FOUR discontinued rebombing at SAIPAN because of the heavy swells. The ASP patrol in the MARIANAS was cancelled because of the inclement weather. The attack on GUAM was resumed at 0700 with the 3rd MarDiv and the 77th InfDiv abreast. Advances of several thousand yards against light resistance placed the troops north of the AGANA-PAGO BAY ROAD. A 50 plane strike was made on enemy concentrations in the MT. SANTA ROSA area during the day. Heavy swells continued to interfere with unloading, however, the supply situation was satisfactory. ARD 17 arrived at GUAM with a load of pontoons. All Scron 12 vessels at GUAM were organized as TU 57.14.12. At 1515 the Landing Force Air Support Commander assumed control of all aircraft in support of the GUAM operations. The Eastern Field was usable to 5000 feet. COMFIFTHFLEET departed from GUAM for SAIPAN. Numerous counter-attacks were launched against our troops during the night. At 0800 our troops launched the final assault on TINIAN and all organized resistance ceased at 1855. Mopping up operations continued. Minesweeping of TINIAN HARBOR was completed and sunken hulks were removed. At 1800 CTF 52 released to CTF 53 the CALIFORNIA and TENNESSEE with escorts from fire support duties. All unloading on the beaches during the day was stopped because of the swells but the supply situation on TINIAN was satisfactory. Thirteen transport planes arrived on SAIPAN and were put in service carrying supplies to TINIAN.

62. August 2. At 0700 COMFIFTHFLEET arrived at SAIPAN from GUAM. A Carrier Task Unit of Carrier Task Group THREE with carriers, cruisers and destroyers arrived at SAIPAN for fueling and re-bombing and to join Carrier Task Group FOUR. Re-bombing could not be carried out, as the swells at SAIPAN were too heavy. Two OBBs departed for GUAM. ComCruDiv FOUR departed from SAIPAN for GUAM to report to CTF 53. At 0630 the attack was resumed against moderate resistance on GUAM. By 1800 several small towns and the TIYAN AIRFIELD were captured. At 0800 the defense of OROTE PENINSULA and CABRAS ISLAND was assumed by the Garrison Force. Air and naval units bombarded

targets on GUAM in support of the ground attack. CarDiv 26 with escorts reported to CTF 53. At 0800 Garrison Troops for TINIAN started to unload. Three cruisers were released from TF 52 and made available to TF 53. The Air Defense Command, MARIANAS, was no longer required in support of operations on TINIAN and was released to TF 53, except for providing air cover for SAIPAN. Heavy swells continued to hamper unloading. Mopping up operations continued on TINIAN in all areas. Unloading over WHITE BEACHES was stopped but 2000 garrison troops were landed from transports off TINIAN TOWN by LCTs. Minesweeping continued within the 200 fathom curve. Tinian gunfire support ships departed for ENIWETOK.

63. August 3. A refrigerated provision barge arrived at SAIPAN. The land based planes at SAIPAN, less heavy bombers of Shore Based Air Forces, Forward Areas, assumed the duties of day and night fighter cover for SAIPAN and TINIAN, night fighter cover for GUAM and for the neutralization of ROTA and PAGAN. TF 59 established plane shuttle service between SAIPAN, TINIAN and GUAM. Cargo planes were used during the period of heavy swells to deliver supplies to TINIAN as well as to evacuate casualties from TINIAN to SAIPAN. At 0700 the attack was resumed on GUAM. The 3rd MarDiv unopposed, entered more open country. The 77th InfDiv met strong resistance in the vicinity of MT. BARRIGADA. Patrols from the 1st ProvMarBrig moving down the west coast and across the island joined at INARAJAN. Air strikes continued against selected targets. OROTE PENINSULA was operational for all types of aircraft. The swells subsided considerably and unloading was accelerated.

64. August 4. At 0300 two Liberators hit HIO JIMA and CHICHI JIMA. A seaplane tender arrived at SAIPAN at 0700. Carrier Task Groups ONE and THREE hit the BONIN ISLANDS. During the night the enemy made two counter-attacks against the 3rd MarDiv on GUAM, both of which were repulsed. Activity in other sectors was light. A task Force created from the 1st Battalion, 22nd Marines, and Garrison Force Personnel relieved the 1st Brigade who passed to ST&LF Reserve. The 77th InfDiv occupied MT. BARRIGADA by 1200 against light opposition. Napalm bombs were used against enemy personnel on six air strikes. The first ships of the Second Echelon Garrison Shipping arrived at GUAM. Reloading of 4th MarDiv assault troops on TINIAN was begun for evacuation to HAWAII. Unloading from LSTs over pontoon causeways improved the supply situation and the rapidity of unloading of equipment. Sweeping operations of all TINIAN waters was completed. Mopping up continued on both SAIPAN and TINIAN.

65. August 5. The PARCHE escorted by the BECUNY arrived at SAIPAN for fueling. At 1212 the HOLLAND moved inside TANAPAG HARBOR, and moored bow and stern. Mopping up continued on

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SAIPAN. During the night the enemy made a weak counter-attack on GUAM. Moderate resistance was met in the center of the 3rd MarDiv sector and on the right of the 77th InfDiv sector. The attack moved steadily forward. The left flank of the 3rd MarDiv advanced about one and one-half miles. The FINEGAYAN AIRFIELD was captured. Enemy bivouac and supply areas in the extreme north of the island were hit by naval and artillery gunfire. Enemy troops were withdrawing to the MT. SANTA ROSA AREA. Fire support units and ships required in the unloading area remained at the objective. All other ships retired. The unloading of garrison troops and reloading of assault troops at TINIAN progressed satisfactorily. Retirement to ENIWETOK of GUAM gunfire support ships and CVEs commenced.

66. August 6. At 1800 a dry provision ship departed from SAIPAN for GUAM. Little enemy activity occurred on GUAM during the night. At 0630 a coordinated attack was launched against stiffening enemy resistance. Bombing, naval gunfire and artillery caused the enemy severe personnel and materiel casualties in the YIGO-MT. SANTA ROSA area. The enemy withdrew from this area, in the face of these concentrations. Support air flew 106 missions during the day. At 1800 Marine Air Group 21 on OROTE FIELD assumed the duty of providing day and night CAP over GUAM. Work was commenced on laying the TINIAN HARBOR anti-submarine net. At 0800 the Island Commander on TINIAN assumed the responsibility for the Shore Party.

67. August 7. CTF 51 assumed responsibility for protective measures by surface ships and for the control of Support Air in the SAIPAN-TINIAN area, relieving CTF 52 of this duty. At 1700 five transports loaded with 4th MarDiv troops departed from SAIPAN for ENIWETOK and HAWAII. Minor enemy activity during the night was reported on GUAM, including some enemy artillery fire in the 77th InfDiv sector. Early this morning the 1st ProvMarBrig entered the assault on the left of the 3rd MarDiv. A coordinated attack at 0730 met moderate resistance. Strong enemy positions were abandoned when assaulted by our troops. At 1300 YIGO was captured. Carrier Task Group FOUR dropped 18 tons of bombs on selected targets. The use of air and naval gunfire seriously restricted enemy movements. All ships except those required at the objective retired. On TINIAN, elements began loading on three additional LSTs. Elements of the 2nd MarDiv continued moving to SAIPAN. Unloading of Garrison Troops, equipment and supplies continued satisfactorily. At 1500 RCT 8 assumed the tactical responsibility for TINIAN.

68. August 8. Eight vessels of LST Group 9 were designated to remain in the MARIANAS. At 0130 two night fighters strafed ROTA AIRFIELD and from 0400 to 0620 one cruiser and two destroyers bombarded the field. Small enemy groups attempted to infiltrate

our lines on GUAM but were destroyed. Corps Artillery placed fire on the slopes of MT. SANTA ROSA which was captured during the day. At 0930 42 VFs attacked ROTA AIRFIELD. Authorization was received for the reactivation of the Insular Patrol Force as the Local Security Patrol Force on GUAM. 39 tons of bombs and 44 rockets were dropped by Carrier Task Group FOUR on selected GUAM targets. All ships not needed at the objective retired. On TINIAN the unloading of garrison troops and the embarkation of the 4th MarDiv troops continued.

69. August 9. CTF 57 in the CURTISS arrived at SAIPAN. At 1800 COMFIFTHFLEET departed from SAIPAN for GUAM. Four ships with 4th MarDiv personnel departed from SAIPAN for ENIWETOK. The 2nd MarDiv, reinforced, less RCT 8, was returned to SAIPAN and assigned to the operational control of the Commanding General, SAIPAN Garrison Forces. Our advance on GUAM continued during the day and all elements of the line reached the north coast by 1700 except in the sector south and southeast of TARAGUE. All ships except those required at the objective retired. At 0830 the CP of the 2nd MarDiv closed on TINIAN and opened at the same time on SAIPAN. At 1200 the CP of the 4th MarDiv closed on TINIAN and opened in the CAMBRIA.

70. August 10. On GUAM our troops attacked at 0730 and at 1131 CG ST&LF announced all organized resistance had ceased and that the island was captured. Our patrols continued to comb GUAM, tracking down isolated enemy remnants. 18 Army Liberators hit IWO JIMA and 20 Thunderbolts struck PAGAN. Rear Admiral REIFSNIDER, ComGrp 4, ThibsPac, relieved Rear Admiral CONOLLY as CTF 53 and SOPA, GUAM, and Rear Admiral CONOLLY departed from GUAM for PEARL HARBOR for duty in another operation. At 1400 all fire support vessels and CVEs were released and departed from GUAM for ENIWETOK. TF 57 seaplanes took over responsibility for the day and night ASP, using Mariners based at SAIPAN. The Island Commander of TINIAN assumed the responsibility for the reembarkation of the remaining assault troops and for the administration and supply of all Army forces on TINIAN. The Capture and Occupation Phase of TINIAN was completed and CTG 56.1 was relieved of command by the Island Commander, TINIAN. Reembarkation of the 4th MarDiv continued.

71. August 11. Troops on all three objectives patrolled actively, seeking and destroying remaining enemy personnel. Base Development Plans and defenses were being completed. Troops were being rehabilitated and reequipped.

72. August 12. The C.O., U.S.S. SAGITTARIUS relieved CTF 52 as SOPA, TINIAN. CTF 57 relieved CTF 51 of the responsibility for the Defense and Development of SAIPAN and TINIAN. The FRINGLE carried out a special fire mission to fire into caves facing the

TINIAN beaches to dislodge enemy personnel. At 0630 Major General TURNAGE, USMC, assumed command of ST&LF, relieving Major General Geiger, who departed for Guadalcanal for duty in another operation. The Southern Fire Support Group and Fire Support Unit FOUR were dissolved and the units departed from GUAM for ENIWETOK. Work on the salvage of LST 340 continued. On August 15 she was refloated, but found not worth repairing. She was beached at TANAPAG HARBOR to be used as a station ship. TF 52 was dissolved, and Rear Admiral HILL departed for ENIWETOK and PEARL with the final convoy of 4th MarDiv troops.

73. August 13. CTF 51 in the ROCKY MOUNT arrived at GUAM. COMFIFTHFLEET departed from GUAM for ENIWETOK.

74. August 14. Lieutenant General Holland M. SMITH, USMC, was relieved as Commanding General Expeditionary Troops by Major General Harry SCHMIDT, USMC. TG 56 was dissolved. The first of the Second and Third Echelons of the Garrison Shipping for TINIAN arrived at TINIAN.

75. August 15. The Capture and Occupation Phase of GUAM was completed. The responsibility for the Defense and Development of GUAM passed from CTF 51 to CTF 57. TF 51 was dissolved. ComPhibsPac in the ROCKY MOUNT departed from GUAM for PEARL HARBOR.

ANNEXES

Annex (1)	Encounters with Enemy Aircraft.
Annex (2)	Summary of Submarine Contacts.
Annex (3)	TOTALS - Casualties, POWs, Civilian Internees and Enemy Dead.
Annex (4)	MAP - SAIPAN - Periodic Front Lines.
Annex (5)	MAP - GUAM - Periodic Front Lines.
Annex (6)	MAP - TINIAN - Daily Front Lines.

ENCOUNTERS WITH ENEMY AIRCRAFT

Item No.	Date Time (King)	Unit(s) Involved	Location	Enemy Involved	Own Defending Forces	Damage to Own Units	Enemy Plane Losses	Remarks
1.	JUNE 13-1000	KITKUN BAY Combat Air Patrol	Lat. 14-06 Long. 150-22	1 Betty	4 FM-2	None	1 Betty	First known enemy air contact by Task Force 51.
2.	15-0930	TF 53	Eastern Operating Area	1 Betty	Ships' Gunfire and C.A.P.	None	1 Betty	
3.	15-1500	BLACK	Lat. 10-25 Long. 140-50	1 Aircraft	Ship's Gunfire	None	None	
4.	15-1800-1930	TG 52.14	Near SAIPAN	Large Formation	Aircraft and Ships' Gunfire	None	By Fighters - 3 sure, 1 probable, 1 damaged. (Types not known) By Gunfire - 2 Kates	
5.	15-1846	TF 52	5 miles south of SAIPAN Anchorage	Formation	Aircraft and Ships' Gunfire	None	By Fighters - 5 Vals	
6.	17-1800	TF 52	SAIPAN Anchorage	Formation	Ships' Gunfire	LST 84 set afire	3 Vals	First of several losses on 17 June.
7.	17-1900	TU 52.17.6	12 miles west of SAIPAN	Several	Ships' Gunfire	None	None	
8.	17-1850-1950	TG 52.11	Vicinity of SAIPAN	Formation	Aircraft and Ships' Gunfire	None	By Aircraft - 'Considerable' By Gunfire - 4 Dive Bombers 1 Betty	
9.	17-1930	TG 53.16	Lat. 13-35 Long. 148-07	Formation	Ships' Gunfire	LCI 486 Torpedoed	3 Kates	

(1)

Item No.	Date Time (King)	Unit(s) Involved	Location	Enemy Involved	Own Defending Forces	Damage to Own Units	Enemy Plane Losses	Remarks
10.	JUNE 17-1800-1830	TG 52.14	Vicinity of SAIPAN	Formation	Aircraft and Ships' Gunfire	FANSHAW BAY 1 - 250 pound bomb on after elevator.	By Aircraft - 4 Kates, 1 Rufe, 1 Lily, 1 Hamp, 1 Betty. By Gunfire - 'Several'	FANSHAW BAY out of action for remainder of FORAGER. 19 planes lost operationally in night landings on CVE's following the action.
11.	18-0534	TU 52.17.6	12 miles west of SAIPAN Anchorage.	Several	Ship's Gunfire	None	1 Tony	Near bomb miss off starboard quarter of MARYLAND.
12.	18-1650	TU 16.7.1 (Oilers)	Eastern Operating area.	About 10	Ships' Gunfire	NESHANIC - 1 hit SARANAC - 1 hit SANGATUCK - Fragments.	None	
13.	18-1755	TG 52.11	Near SAIPAN	Formation	Aircraft and Ships' Gunfire	None	5 Zekes	31 own planes lost operationally in night landings on CVE's. KALININ BAY sent to ENIWETOK for replacements.
14.	19-1900	TG 52.2	SAIPAN Anchorage	Several	Ships' Gunfire	None	None	
15.	22-0112	TF 52	Near SAIPAN	About 12	None	None	None	CLAY straddled
16.	22-1101	SANGAMON Combat Air Patrol	35 miles northwest SAIPAN	1 Betty	4 F6F-3	None	1 Betty	First of several for fighters this day.
17.	22-1734	TG 5214	45 miles east of TINIAN	1 Fran	4 FM-2	None	1 Fran	
18.	22-1745	SANGAMON and SUWANEE Combat Air Patrol	50 miles north east of SAIPAN	1 Betty	8 F6F-3	None	1 Betty	
19.	22-1950	MARYLAND	Off SAIPAN Anchorage	1 Plane	None	MARYLAND Torpedoed	None	Low flying plane whose approach was not detected.

Item No.	Date Time (King)	Unit(s) Involved	Location	Enemy Involved	Own Defending Forces	Damage to Own Units	Enemy Plane Losses	Remarks
20.	JUNE 22-2334 to 23-0200	TF 52	SAIPAN Anchorage	3 raids and 3 to 5 planes each.	Ships' Gunfire	None	None	
21.	23-1205	TU 16.17.12	Lat. 14-04 Long. 143-34	Several	Aircraft and Ship's Gunfire	None	None	
22.	23-1235	MIDWAY Combat Air Patrol	Near SAIPAN	2 Kates	4 FM-2	None	2 Kates	
23.	23-2212	TG 52.17	Near SAIPAN	1 Plane	None	None	None	3 bombs 1500 yards astern LOUISVILLE.
24.	24-0052	TF 52	SAIPAN	Several	Ships' Gunfire	PCS 1461 - 9 casualties from fragments LCT 998 - 9 casualties from fragments	None	PCS 1402 near miss.
25.	24-1925 and 2040	TF 52	SAIPAN	About 10 planes in one raid.	Ships' Gunfire and Nite Fighter	None	None	
26.	26-2130	TF 52	SAIPAN	About 10 planes.	Ships' Gunfire and Nite Fighters.	MERCURY-Hole in superstructure from torpedo hit, but no explosion. Isely Field, SAIPAN bombed - 11 casualties.	1 Fran	MERCURY brought down Fran by collision with Jumbo Boom. 2 P61 lost due to collision between planes landing and taking off.
27.	26-2300 to 27-0010	TG 52.14	Near SAIPAN	Several	Ships' Gunfire	None	1 Betty	Near miss SUWANEE.
28.	27-1854 to 28-0030	TF 52	SAIPAN	Several in each of 9 raids.	Ship and Shore Gunfire and Nite Fighters.	None	None	Near miss CAMBRIA

ENCOUNTERS WITH ENEMY AIRCRAFT

Item No.	Date Time (King)	Unit(s) Involved	Location	Enemy Involved	Own Defending Forces	Damage to Own Units	Enemy Plane Losses	Remarks
29.	JUNE 28-2040 to 2137	TF 52	SAIPAN	5 Planes	Ship and Shore Gunfire and Nite Fighters.	None	3 claimed by Shore Gunfire.	
30.	29-2100	TG 58.4	Near ROTA	Several	Combat Air Patrol and Carrier Nite Fighters.	None	1 By C.A.P. 3 By Nite Fighters.	Included because of proximity to Task Force 52.
31.	30-1947 to 1-0139	TF 52	SAIPAN	Several in each of 9 raids.	Ship and Shore Gunfire and Nite Fighters.	Several bombs on SAIPAN.	1 by Nite Fighters.	First kill by SAIPAN Nite Fighter. Japs possibly landed at ROTA.
32.	JULY 2-0059 to 0215	TF 52	SAIPAN	About 5 planes.	Ship and Shore Gunfire and Nite Fighters.	None	1 by BENNION. 1 crashed.	Survivors of crash rescued by RENSHAW. 1 plane attacked Transports. 1 plane attacked CVE's.
33.	5-1957 to 2055	TF 52	SAIPAN	3 to 5 planes.	Nite Fighters	2 planes dropped bombs near Isely Field.	1 by Nite Fighter.	Believed attempt to land at SAIPAN. (See next item.)
34.	6-0020 to 0044	TF 52	SAIPAN	1 plane.	None	None	1 by Nite Fighter.	This plane though to have landed and taken of from MARPI POINT Field.
35.	6-1935 to 0012	TF 52	SAIPAN ROTA Area.	About 12 to 15 planes in 3 groups, 2 raids.	Nite Fighters and Ships' Gunfire.	A few bombs on SAIPAN.	2 by Nite Fighters. 1 by HUDSON.	Jap planes attempted landings at MARPI POINT and North Field TINIAN, driven off by ships' gunfire. May have landed South Field.
36.	7-1945 to 8-0007	TF 52 and TG 58.4	SAIPAN ROTA Area.	Several in each of 9 raids.	Carrier and SAIPAN Nite Fighters.	25 bombs on Isely Field.	1 by Carrier Nite Fighters. 1 by SAIPAN Nite Fighters.	Final Enemy Air Attack FORAGER.

Joint Expeditionary Force (TF 51),
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
25 August 1944.

ANNEX TWO TO ENCLOSURE (A)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

SUMMARY OF SUBMARINE CONTACTS DURING FORAGER

1. The below list is a chronological record of information on hand as to anti-submarine action taken by TF 51 ships and planes during FORAGER. It also includes action by TG 12.2, a hunter-killer CVE group which operated between ENIWETOK and SAIPAN.

Item No.	DATE	UNIT	LOCATION	EVALUATION OF CONTACT	ATTACK GROUP AND ACTION	EVALUATION OF ATTACK
1.	6/12	TG52.15	13-21N 156-27E	Probable	BENNION received sound contact at 1704. Attacked with an eleven charge pattern at 1719. OVERTON joined BENNION at 1731 and laid one depth charge pattern. BENNION dropped second eleven charge pattern at 1739 after which contact was not regained. Area was searched until 1817 when SHAW and CONY relieved. They were unable to regain contact.	Negative
2.	6/13	TG52.17	15-19N 146-53E	Probable	MELVIN made good sound contact at 2208. Dropped depth charge patterns.	Very large oil slick an odor of diesel noted. Possible damage.
3.	6/14	TG52.15	15-26N 146-30E	Certain	The ROBINSON first made radar contact with surfaced submarine at2021 but upon illuminating with starshell submarine submerged. Upon heading in direction of radar contact, strong sound contact was	

SUMMARY OF SUBMARINE CONTACTS DURING FORAGER

Item No.	DATE	UNIT	LOCATION	EVALUATION OF CONTACT	ATTACK GROUP AND ACTION	EVALUATION OF ATTACK
					made and full pattern of depth charges dropped. Contact was lost but regained. Upon closing range an oil slick 500 by 1000 yards was sighted. Second full pattern of depth charges was dropped. The CONY relieved ROBINSON and dropped one pattern of depth charges.	
4.	6/17	TG52.17	15-19N 146-53E	Certain	MELVIN made visual contact at close range and opened fire on surfaced submarine. Submarine was seen to submerge after one hit. WADLEIGH joined MELVIN and four full pattern depth charge attacks were made at 0228, 0243, 0343 and 0423.	After explo- of last dep charge heav, underwater explosion was felt. Oil slick, raising oil bubbles, & debris were sighted. Probable kill.
5.	6/22	TG51.18	15-50N 147-08E	Certain	NEWCOMB made contact at 0845 and fired five charge pattern at 0847. The CHANDLER arrived to assist at 0907 and searched area between last contact and transports. One ASP plane also in area and assisted in search. At 0925 NEWCOMB regained	Two heavy underwater explosions felt. Great quantities of oil, debris and air bubbles raising to surface. Certain kill.

SUMMARY OF SUBMARINE CONTACTS DURING FORAGER

Item No.	DATE	UNIT	LOCATION	EVALUATION OF CONTACT	ATTACKING GROUP AND ACTION	EVALUATION OF ATTACK
					contact and fired a nine charge pattern. Air bubbles and shadow of submarine sighted. CHANDLER closed NEWCOMB to assist. NEWCOMB fired an eight charge pattern. Oil and debris appeared on surface of water. Third pattern of seventeen depth charges was dropped at 1017. At 1027 and 1147 CHANDLER dropped depth charge patterns in area. Contact was not regained.	
6.	6/29	TF 52	15-08N 145-30E	Doubtful	BENNION made sound contact at 1555. Attacked at 1604 with eleven charge pattern. Contact was not regained. Searched area until 1648.	Negative
7.	6/30	TF 52	SAIPAN Screen	Doubtful	CONYNGHAM reported sound contact and dropped full battery of depth charges at 0333. CLEMSON also assisted however contact was not regained, and no further attack was made.	Negative
8.	7/2	TF 52	SAIPAN Screen	Doubtful	DICKERSON reported possible contact. SELFRIDGE sent to help investigate, however, contact was not regained and no attack was made.	Negative

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

SUMMARY OF SUBMARINE CONTACTS DURING FORAGER

Item No.	DATE	UNIT	LOCATION	EVALUATION OF CONTACT	ATTACK GROUP AND ACTION	EVALUATION OF ATTACK
9.	7/5	TF 52	15-14N 145-49E	Doubtful	Air observer reported possible submarine sighted 200 yards from beach. WADLEIGH and BENHAM sent to investigate. WADLEIGH maneuvered as close to beach as safe navigation made possible and fired starboard depth charges. Due to doubtful contact no further search was made.	Negative
10.	7/6	TF 52	SAIPAN Screen	Doubtful	At 1010 air observer reported sighting shadow of submarine close to beach near northern part of SAIPAN. BENNION, YARNELL and DEEDE sent to investigate and dropped depth charge patterns as directed by ASP plane. SHAW and MELVIN also assisted in search. However no definite sound contacts were made. Plane reported two small oil slicks were sighted but this was not confirmed by attacking destroyers. Destroyers discontinued search leaving CHANDLER to patrol area. At 1440 shore observer reported seeing submarine break water. ROBINSON, BAGLEY, BENHAM,	Negative

SUMMARY OF SUBMARINE CONTACTS DURING FORAGER

Item No.	DATE	UNIT	LOCATION	EVALUATION OF CONTACT	ATTACK GROUP AND ACTION	EVALUATION OF ATTACK
					and HALSEY POWELL investigated without results. Upon recommendation of destroyers search was called off.	
11.	7/7	TF 52	12-54N 158-45E	Doubtful	GOLDSBOROUGH made sound contact at 1330. SAUFLEY was sent to assist, however, contact was not regained and no depth charges were dropped.	Negative
12.	7/10	TG53.18	15-38N 144-38E	Certain	GUEST made sound contact at 0300 and dropped forty depth charges before losing contact at 0500. Destroyers and planes remaining in area did not regain contact.	Small amount of oil noted. Damage to submarine pos sible.
13.	7/14	TF 52	15-14N 145-09E	Certain	ASP plane sighted submerging submarine at 2120, 13 July. GILMER and W.C.MILLER arrived at point of observed submarine at 0022, 14 July and began retiring search in accordance with diagram #8 FTP 219. Sound contact made at 0722 and two thirteen charge patterns were dropped at 0726 and 0752. The	After second pattern had been dropped pieces of dec planking appeared on sur face, and heavy prolong underwater explosion was felt. Large bubbling oil slick appeared and additional debri Lookouts reported seeing what appeared to be smooth

SUMMARY OF SUBMARINE CONTACTS DURING FORAGER

Item No.	DATE	UNIT	LOCATION	EVALUATION OF CONTACT	ATTACK GROUP AND ACTION	EVALUATION OF ATTACK
					third thirteen charge pattern was dropped in locality of oil slick as sonar indications were submarine was dead in the water. No further contact was made.	surface of submarine break the water durin third attac One human lung and debris with Japanese marking recovered. Certain kil
14.	7/24	TF 52	15-18N 145-13E	Probable	ASP plane made radar contact at 2146 and developed with Sonobuoys. Dropped depth charge pattern at 2300.	Indications of explosion receiv ed from Son buoy recei er and four mile oil slick sight at dawn. Possible da age.
15.	8/6	PARCHE	15-47N 145-20E	Doubtful	PARCHE sighted submarine periscope. STOCKHAM, MONSSEN and one plane sent to investigate. TWENTY depth charges were dropped but contact was not regained.	Negative
16.	8/7	TF 52	SAIPAN Screen	Doubtful	CONWAY made sound contact and attacked with a fifteen charge pattern. Contact lost and not regained.	Negative
17.	8/11	TF 52	SAIPAN Screen	Possible	PC(S) 1452 reported sound contact at 1005. DOWNES and W. 6. MILLER were	Hunter kille report negative. However PC(S)

SUMMARY OF SUBMARINE CONTACTS DURING FORAGER

Item No.	DATE	UNIT	LOCATION	EVALUATION OF CONTACT	ATTACK GROUP AND ACTION	EVALUATION OF ATTACK
					assigned hunter killer mission with ASP plane. Plane dropped depth charges on what later was reported as false reflection. At 1300 DOWNES reported area had been searched with negative results and believed it improbable submarine was in area. At 1600 search was discontinued.	1452 reported they had conclusive evidence that contact was positive & that hits were effected. Due to departure CTF 51 this report was not confirmed.
18.	8/15	TF 53	GUAM Screen	Doubtful	STOCKHAM made sound contact and reported developing. LONGSHAW was sent to assist. A two and 1/2 hour search was conducted without results.	Negative

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

SUMMARY OF SUBMARINE CONTACTS DURING FORAGER

2. During the period from July 6 to July 20, and July 25 to August 4, Task Group 12.2 (HOGGATT BAY, LAKE, WYMAN and REYNOLDS) operated as A/S patrol in an area bounded by Lat. 14-30N, 12-30N, Long. 150°E, 153°E. The following A/S attacks were reported by CTG 12.2. These items included because made along TF 51 line of communications.

Item No.	DATE	UNIT	LOCATION	EVALUATION OF CONTACT	ATTACK GROUP AND ACTION	EVALUATION OF ATTACK
1.	7/7	TG12.2	14-02N 153-27E	Probable	LAKE made sound contact and made one depth charge attack. WYMAN assisting made second depth charge attack. Contact was then lost and not regained.	Negative
2.	7/19	TG12.2	12-58N 153-03E	Certain	Contact made by radar at 2310, 18 July. WYMAN and REYNOLDS closed contact but submarine had submerged. Good sound contact was made. WYMAN made two attacks with hedgehogs. Contact not regained	Five minut after seco hedgehog a tack three violent un water expl sions occu Large oil slick and much debri in locatio of contact Certain ki
3.	7/28	TG12.2	14-20N 152-15E	Certain	Submarine sighted surfacing astern of HOGGATT BAY at 1631. WYMAN and REYNOLDS estab lished sound contact at 1705. WYMAN attacked at 1714 and estimated ten hedgehog hits. Contact was not regained.	Heavy unde water explo sion felt after attac and large bubbling d sel oil sli appeared. Also many ces of dec planking a interior fi tings. Ce tain kill.

[redacted] ANNEX 3 TO ENCLOSURE (A)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

CASUALTIES* OF TROOPS, ETC.

UNIT	KIA	WIA	MIA	TOTAL
2nd MarDiv	1150	4914	106	6170
4th MarDiv	966	5505	141	6612
27 InfDiv	899	2485	112	3496
XXIV Corps Arty	7	18	0	25
Corps Troops	18	130	4	152
TOTAL	3040	13052	363	16455

(15 June - 23 July (incl)

GUAM

1st Prov Brig	353	1863	203	2419
3 MarDiv	620	2643	223	3486
77 InfDiv	179	704	29	912
III Corps Arty	0	1	0	1
III Corps Troops	13	52	19	84
TOTAL	1165	5263	474	6902

(21 July - 10 August (incl)

TINIAN

2 MarDiv	104	654	3	761
4 MarDiv	182	844	20	1046
XXIV Corps Arty	0	4	0	4
Corps Troops	4	13	1	18
TOTAL	290	1515	24	1829

(24 July - 9 August (incl)

FORAGER

1st Prov Brig	353	1863	203	2419
2 MarDiv	1254	5568	109	6931
3 MarDiv	620	2643	223	3486
4 MarDiv	1148	6349	161	7658
27 InfDiv	899	2485	112	3496
77 InfDiv	179	704	29	912
XXIV Corps Arty	7	18	0	25
V Corps Troops	18	130	4	152
III Corps Arty	0	1	0	1
III Corps Troops	13	52	19	84
GRAND TOTAL FORAGER TROOPS	4491	19813	860	25164

ANNEX 3 TO ENCLOSURE (A)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FOR OPERATION

PRISONERS OF WAR*

SAIPAN	(15 June - 10 Aug (incl)	1810
GUAM	(21 July - 12 Aug (incl)	186
TINIAN	(24 July - 10 Aug (incl)	404
	TOTAL FORAGER	2300

CIVILIAN INTERNEES*

SAIPAN	(15 June - 10 Aug (incl)	14735
GUAM	(21 July - 10 Aug (incl)	14869
TINIAN	(24 July - 10 Aug (incl)	13262
	TOTAL FORAGER	42866

ENEMY DEAD BURIED*

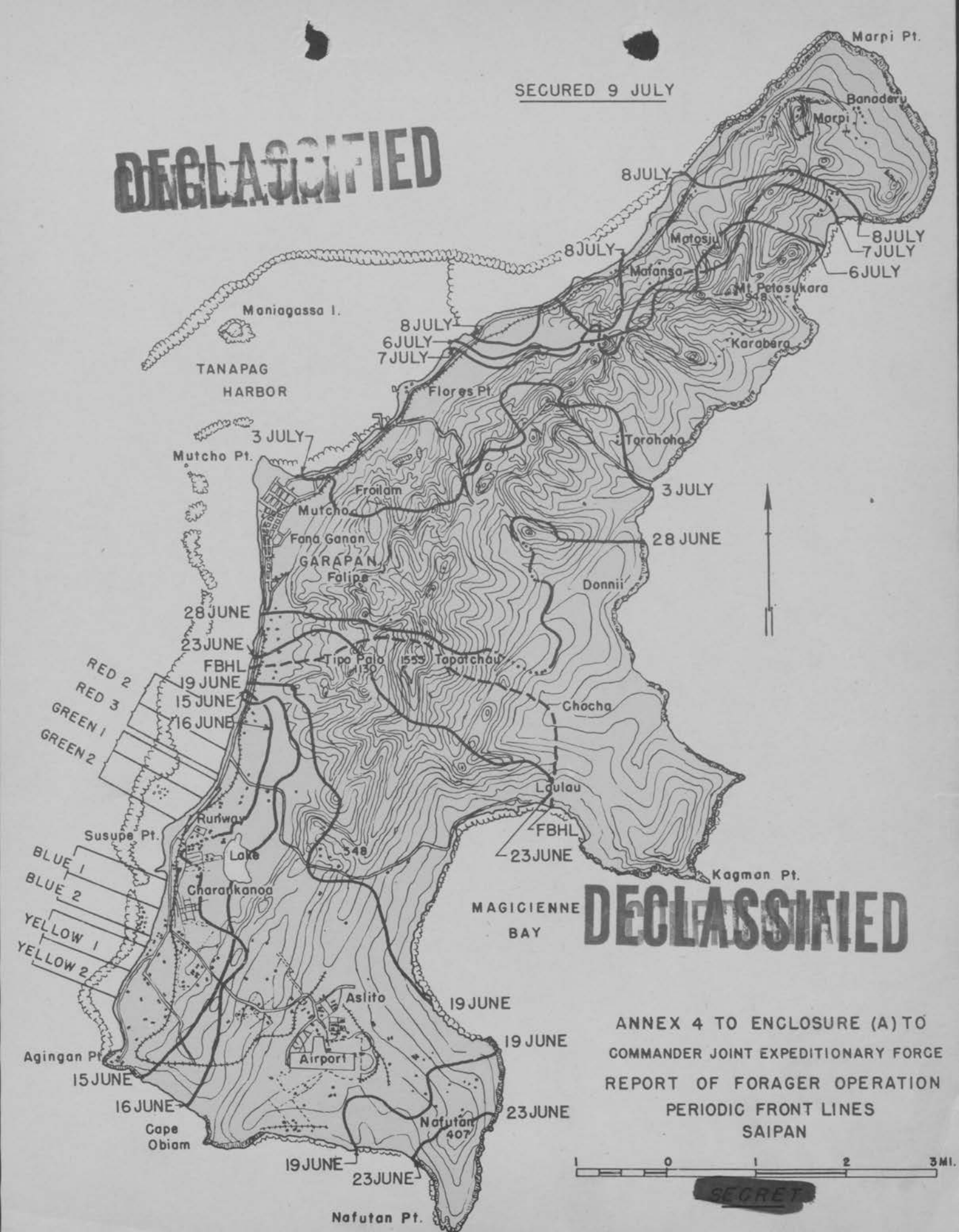
PERIOD OF ASSAULT

SAIPAN	(15 June - 9 July)	13542
GUAM	(21 July - 10 Aug)	11502
TINIAN	(24 July - 1 Aug)	2683
	TOTAL	27727

FROM DAY OF ASSAULT TO 15 AUGUST

SAIPAN	25144
GUAM	14067
TINIAN	5745
TOTAL	44956

* Figures are approximate and were taken from Task Force 53, Task Force 56, Task Group 56.1, Task Group 56.2 and Division Reports.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SECURED 9 JULY
Marpi Pt.
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Mt. Petosukara
548
Maniagassa I.
8JULY
6JULY
7JULY
Karabera
TANAPAG
HARBOR
Flores Pt.
3 JULY
Mutcho Pt.
Torohoho
Froilam
3 JULY
Mutcho
Fona Ganan
28 JUNE
GARAPAN
Falipe
Donnii
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23 JUNE
FBHL
Tipo Palo
130
555
Tapatchau
19 JUNE
15 JUNE
16 JUNE
RED 2
RED 3
GREEN 1
GREEN 2
Chocha
Laulau
Runway
Susupe Pt.
FBHL
23JUNE
Lake
348
Kagman Pt.
BLUE 1
BLUE 2
Charankanoa
MAGICIENNE
BAY
YELLOW 1
YELLOW 2
Aslito
19 JUNE
19 JUNE
Agingan Pt
Airport
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16 JUNE
23 JUNE
Cape
Obiam
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ANNEX 4 TO ENCLOSURE (A) TO
COMMANDER JOINT EXPEDITIONARY FORCE
REPORT OF FORAGER OPERATION
PERIODIC FRONT LINES
SAIPAN
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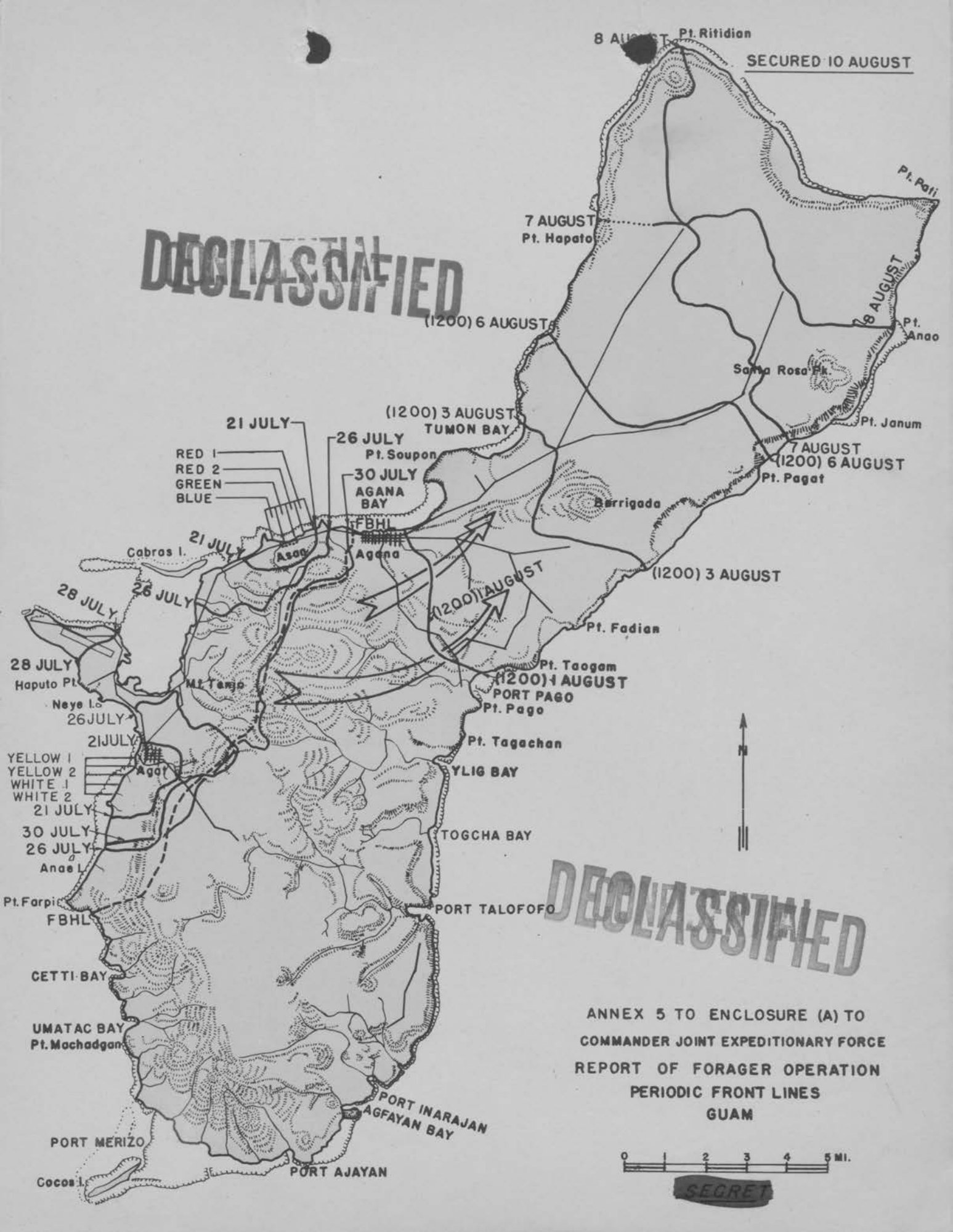

ANNEX 5 TO ENCLOSURE (A) TO
COMMANDER JOINT EXPEDITIONARY FORCE
REPORT OF FORAGER OPERATION
PERIODIC FRONT LINES
GUAM

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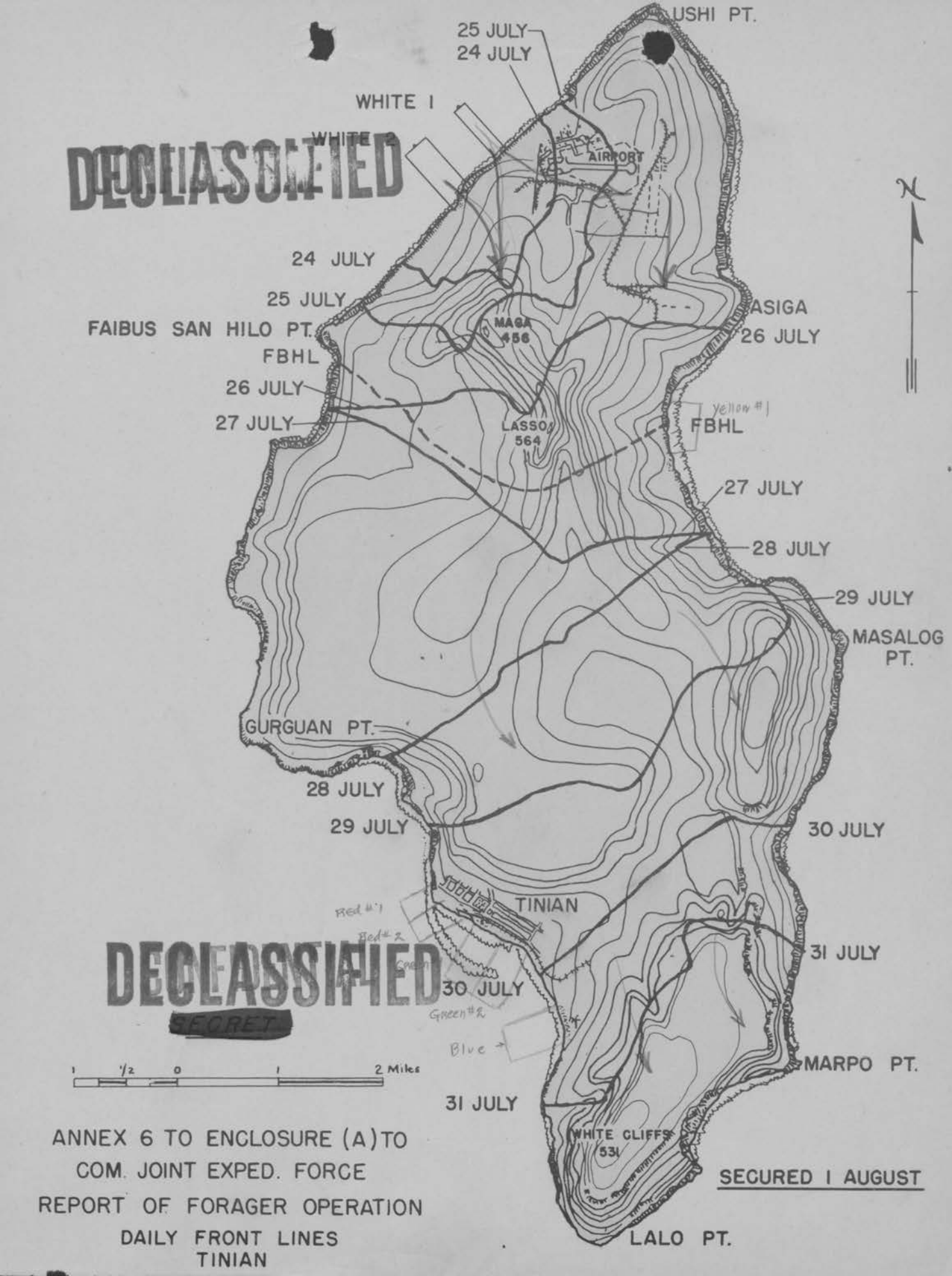

ANNEX 6 TO ENCLOSURE (A) TO
COM. JOINT EXPED. FORCE
REPORT OF FORAGER OPERATION
DAILY FRONT LINES
TINIAN

[redacted]

JOINT EXPEDITIONARY FORCE (TF 51)
OFFICE OF THE COMMANDER
U.S.S. ROCKY MOUNT, Flagship.
August 25, 1944.

ENCLOSURE (B)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

INTELLIGENCE REPORT

I. GENERAL

1. The preparation and dissemination of Intelligence material for FORAGER followed the same general pattern used during FLINTLOCK with certain necessary variations, and with improvements based on the experience gained in the FLINTLOCK and GALVANIC Operations. The material prepared and issued followed as closely as was feasible, considering the terrain and existing information, with that listed as essential in paragraph 10 of Enclosure (B) to Commander Joint Expeditionary Force Report of FLINTLOCK Operation, and it is felt that it was most adequate. A few minor changes were desirable considering the variation in the terrain from that of the atolls and the amount of land mass covered. These changes were more in the make-up of the maps and charts issued, than in any new type of map or chart issued.

2. In the two previous operations directed by this Force, it was possible to include the general, navigational, beach, anchorage, weather, etc., information right in the Intelligence Annex to the Operation Plan. In preparing for FORAGER, it was seen that there was so much information available on the three objectives, that it was desirable to issue this to all ships and units of the Joint Expeditionary Force in the form of Information Bulletins prior to the time of the distribution of the Operation Plan. At the same time, the "Intelligence Doctrine (Circular Letter AL23-44)" for the Force was published in the form of a circular letter, AL23-44, attached as Annex 1. All this material was assembled in folders which contained the following bulletins and letters:

(a) Information on SAIPAN ISLAND.
(b) Information on TINIAN ISLAND.
(c) Information on ROTA and AGUIJAN ISLANDS.
(d) Letter on "Chart Requirements for all Ships".
(e) Letter on "Recognition of Friendly and Enemy Aircraft".
(f) Intelligence Doctrine, FIFTH Amphibious Force.

These folders were distributed to all ships and units of the Joint Expeditionary Force. This proved to be a very effective method for it afforded all ships and units the

necessary information on defenses, beaches, navigational features, tides, currents, sunrise and sunset, moonrise and moonset tables, S.O.P., and general information on the islands for necessary planning and study. It also made the Intelligence Annex shorter and more concise, thereby cutting down somewhat the bulk of the Operation Plan.

3. The Intelligence Annex to Commander Task Force FIFTY-ONE Operation Plan A10-44 contained the following:

I. General Information.
II. (A) Summary of the Enemy Situation.
(1) Enemy Defensive Plans.
(2) Enemy Air Searches.
(3) Enemy Bases and Installations.
(4) Defenses at Objectives.
(5) Meteorological and Weather Information.
III. Reconnaissance and Observation Missions.
IV. Measures for handling prisoners and captured documents.
V. Maps and Photographs.
VI. Counter Intelligence.
VII. Special Information.
VIII. Reports and Distribution.

This information was complete up to the date of issue. Information which developed later was issued as received by the most expeditious means available. Sources of this information included photographs, reconnaissance, captured enemy documents, interrogation of prisoners, and JICPOA releases. Dissemination was in the form of despatches, map and chart overprints, photographs including enlargements, bulletins, etc.

II. MAPS AND CHARTS

1. The preparation of maps and charts was greatly facilitated by intelligence that had been accumulated prior to the time of preparation of plans. During the FLINTLOCK Operation accurate Japanese maps of the harbors and coastal waters of SAIPAN, TINIAN and ROTA were captured. These charts were printed by the Hydrographic Office after they were translated into English, soundings converted into fathoms, and all additional known information added. 1,500 copies of each were made available to the Force for distribution to all ships participating in this operation. From these charts were taken the control for the maps that were

later produced. These charts were later checked by the Hydrographic Surveying Teams during the operation and found to be accurate.

2. In the case of GUAM there were hydrographic charts available from the time of our previous control over this island. Also there were available old Marine Corps School maps of the island on the scales of 1:20,000 and 1:62,500. These Marine Corps Schools maps of GUAM were printed, with the new grid system, as they were, due to the late photo coverage. When this coverage was finally obtained on 25 April, 1944, the three more important sheets were overprinted with the newly obtained information. Due to the short time available and the very few changes in the other eight sheets, these eight were not overprinted.

3. In preparing maps of SAIPAN and TINIAN, it was necessary to wait for photo coverage. The captured Japanese charts showed form lines for the terrain, but these were not considered accurate enough for naval gunfire and artillery; however, these charts were considered accurate for the necessary control. The first photographic coverage of SAIPAN and TINIAN was taken during the carrier strikes on February 22 - 23, 1944. This coverage did not give complete vertical coverage, but by use of the oblique coverage with multiplex equipment, it was possible to construct contoured maps that were reasonably accurate. When complete vertical coverage was later secured by VD-4, these maps were checked and necessary changes made prior to final printing.

4. JICPOA was most helpful and cooperative during the entire planning and preparatory stage. The 64th Engineer Topographical Corps Company was increased to a Battalion, now known as the 64th Engineer Topographical Battalion, at the instigation of the Officer-in-Charge, JICPOA. This battalion was made available for constructing maps, and the printing was done by the Map Reproduction Plant, USAFICPOA. The scales of the maps desired, and other pertinent features were agreed on between the Officer-in-Charge, JICPOA; the Engineer of the FIFTH Amphibious Corps; and the Intelligence Officer, FIFTH Amphibious Force; the latter two incorporating suggestions from subordinate commands. All requests were coordinated and a definite program on map making and printing was agreed on. This allowed for smooth operating on the part of the 64th Battalion which worked directly under the Officer-in-Charge, JICPOA.

5. It was not feasible to print maps at the scale of 1:3,000 as was done during the FLINTLOCK Operation. After conference it was agreed to limit the scale to the standard 1:20,000 maps. Considerable difficulty was then experienced in agreeing on a system of designating and showing target areas. The large land masses necessitated a different system from that used during the FLINTLOCK Operation, for sequence of numbers and squares was essential. Several suggested samples were submitted to the Naval Gunfire and Artillery Officers of the units concerned. After several conferences one system was finally decided upon and approved by the Commander of the Joint Expeditionary Force. A sample of the system is attached as Annex (2).

6. Since all ships of Task Force FIFTY-ONE were staging through the MARSHALLS, it was considered advisable to secure sufficient copies of all anchorage and navigation charts of the three bases used. 700 copies of each were obtained and distributed to all ships and commands along with the Intelligence Appendices. This system proved valuable for it saved time upon reaching each of the bases, and facilitated expediting the fueling plan.

7. The final list of maps and charts distributed to all ships and units of the Joint Expeditionary Force plus ships of Task Force FIFTY-EIGHT is as follows: (This does not include Intelligence maps, beach studies, beach diagrams, photographs, etc.).

NO.	DESCRIPTION	NO. OF SHEETS	NO. OF COPIES OF EACH SHEET DISTRIBUTED
1.	Grid Charts for FORAGER (layout of Special Grid System)	5	1,000
2.	GUAM - Gridded Chart 1" equals 1 nautical mile (for use on DRT)	1	2,000
3.	GUAM - Gridded Chart 2" equals 1 nautical mile (showing target areas and anchorages; for use on DRT).	3	2,500
4.	GUAM - Map 1:20,000 (Air and Gunnery Target Map)(Showing Beaches, Target Areas, and enemy installations; for use by all ships and units)	11	3,000

INTELLIGENCE REPORT

NO.	DESCRIPTION	NO. OF SHEETS	NO. OF COPIES OF EACH SHEET DISTRIBUTED
5.	GUAM - Map 1:62,500 (Gridded map for general use)	1	1,500
6.	SAIPAN, TINIAN, AGUIJAN Gridded Chart 1" equals 1 nautical mile (for use on DRT)	1	2,000
7.	SAIPAN, TINIAN, AGUIJAN Gridded Chart 2" equals 1 nautical mile (showing target areas and anchorages; for use on DRT).	2	2,500
8.	SAIPAN, TINIAN, AGUIJAN, 1:20,000 (Air and Gunnery Target Map) (Showing beaches, target areas and enemy installations; for use by all ships and units).	9	3,000
9.	ROTA - Gridded Chart 1" equals 1 nautical mile (for use on DRT)	1	1,000
10.	ROTA - Gridded Chart 2" equals 1 nautical mile (showing target areas)(for use on DRT)	1	1,000
11.	ROTA - Map 1:20,000 (Air and Gunnery Target Map)(Showing Target Areas and Enemy Installations) (for use by all ships and units)	1	1,500
12.	Set of H.O. Charts (Nos. 6044, 6045; 6059; 6060; 6061; 6062, 6063, 6055, 6056, 6057, 6054) from captured Japanese charts.	13	1,200
13.	Anchorage Charts of ROI, KWAJALEIN, MAJURO, and ENIWETOK.	11	700

8. Comments on Maps and Charts.

(a) The charts of the 6,000 series printed by the Hydrographic Office from the captured Japanese charts proved to be reliable and accurate for regular nav-

igation. The soundings along the reef and between the reef and the shore at SAIPAN were found to be approximate only. These were corrected by hydrographic surveys during the operation. The charts 1" equals 1 nautical mile and 2" equals 1 nautical mile for use on DRT proved to be useful and reliable.

(b) The maps, scale 1:20,000 were correct as to horizontal control, but numerous discrepancies were noted in the ground forms and vertical control. In the case of SAIPAN and TINIAN this is due to the inadequate vertical photo coverage of these islands prior to the time of printing of these maps. The most glaring discrepancy was around MT. TAPOTCHAU on SAIPAN where good coverage was not received until Dog minus Fifteen when the Force had already begun to move. It is felt that if good vertical coverage can be obtained in time, with the present equipment available, accurate contoured maps can be produced easily from photographs.

In the case of the 1:20,000 maps on GUAM, it was found that the old Marine Corps School maps used often had errors in ground forms, but more specific comments will be made by Commander Task Force FIFTY-THREE and Commander Task Group FIFTY-SIX POINT TWO.

9. Special Intelligence Maps

(a) Maps Issued with Intelligence Notes

In order to facilitate the issue and dissemination of information along with the Intelligence notes distributed prior to the operation order, small intelligence maps of each of the objectives were included in the Notes. These maps gave all known enemy defensive installations as of the date issued, and a beach study of all the named beaches. This proved to be most helpful to subordinate units for further planning and study.

(b) Final Intelligence Maps

While enroute to the MARSHALLS staging area, Intelligence maps at a scale of 1:20,000 were drawn up and printed. Contours, vegetation and letters of the

200 yard target areas were left off to increase clarity and to emphasize the defensive installations. The numbers and outline of the 1,000 yard target squares and the Gateway grid were printed thereon to facilitate the locating of the various installations, and one of the 1,000 yard target squares was broken down and lettered to be used as a guide for locating the 200 yard target areas within the other squares.

(1) SAIPAN Intelligence Maps

At the staging area the Dog minus Fifteen photo coverage of SAIPAN was received. An interpretation was immediately made and the additional information overprinted in a different color. These maps were then given wide distribution to Task Force FIFTY-TWO with information copies to Commander Task Force FIFTY-THREE. These proved most valuable as well as being of informational value to other ships and commands.

(2) TINIAN Intelligence Maps

On Dog minus Fifteen and Dog minus One photos were received of TINIAN. Interpretations were made and shortly after Dog Day this additional information was overprinted in another color. These were then distributed to all fire support ships, carriers, Commander Support Aircraft, and naval gunfire officers to be used in the softening up of TINIAN.

On July 5, a complete vertical coverage, scale 1:5,000 was made by VD-4. This coverage in conjunction with coverage that was made by carrier aircraft up to 12 July was interpreted for additional installations and also those installations destroyed. This additional information was then overprinted, showing new installations and those which had been destroyed. 1,500 copies of this map were then distributed by Commander Task Force FIFTY-TWO to all ships and units along with the final attack order.

(3) GUAM Intelligence Maps

The up to minute Intelligence was kept, but the issuing of this final information was to be made by Commander Task Force FIFTY-THREE. However, when it was decided to send fire support ships from the SAIPAN area direct to GUAM for bombardment, Commander Task Force FIFTY-THREE then being in the MARSHALLS, the need for the latest intelligence to these units was seen. An Intelligence Map, scale 1:20,000 of the landing beach areas and the APRA HARBOR area, was then drafted and printed. Distribution was made to those units concerned with 700 copies to Commander Task Force FIFTY-THREE for further distribution. This map was made up in the same manner as those on TINIAN and SAIPAN.

(4) Comments

It is felt that this last minute intelligence map is of great value and of much more use than any attempted notification to all units of additional information by despatch. Comments received up to the time of the writing of this report were all favorable.

10. Air Target Maps (Small)

The system of using photos with grid and target areas overprinted as used during the FLINTLOCK Operation was not considered feasible. With the large land masses involved and the difficulty in laying mosaics that were clear without clouded areas, it was necessary to make the small air target maps similar to the 1:20,000 topographic maps (Air and Gunnery Target Maps). These were printed up on 8 inch sheets by Joint Intelligence Center, Pacific Ocean Areas, then stapled together in a folder for issue to all pilots. The first page of this folder gave an overall outline of the island showing the breakdown of the sheets, thereby facilitating the location of the proper sheet. The same target area system was used on these as was used on the 1:20,000 maps and the charts, 2" equal 1 nautical mile. A few minor recommendations for changes in these will be made by the Commander Support Aircraft in this report.

11. Recommendations in regard to Maps, Charts, and Air Target Maps.

(a) The present special grid system used on all maps and charts has proven itself during the FLINTLOCK and FORAGER Operations; it is recommended that it be retained and used for future operations.

(b) The target area system used as shown in Annex (2) has proven itself, and its use in future operations is recommended.

(c) It is recommended that maps at a scale of 1:20,000 with target areas and enemy installations shown be maintained as standard for the Amphibious Forces.

(d) It is considered worthy of trial printings that the chart, 2" equals 1 nautical mile, have only the 1,000 yard squares numbered, with one of the squares broken down into 200 yard target areas and lettered to be used as a guide on the chart. This eliminates additional lines and letters on such a small scale chart allowing for more clarity. This chart should be contoured and show as much information as practicable.

(e) The chart, 1" equals 1 nautical mile, should be maintained as published, except all points that might aid in navigation should be placed thereon. It is also desirable to show landing beaches, transport areas and control lines, where possible.

(f) Changes to be made in the small air target maps will be recommended by the Commander Support Aircraft.

(g) Recommend a late intelligence map be published at a scale of 1:20,000 as was done during FORAGER for the dissemination of the latest intelligence information. These to be printed on sheets of the size of the lithographic presses on board the AGC's in order that overprints can be made in the theater of operations.

III. RELIEF MODELS

1. Plastic Relief Models

The Joint Intelligence Center, Pacific Ocean Areas, con-

structed plastic models at an approximate scale of 1:5,000 on the landing beach areas and the southern sector of SAIPAN; and the landing beach areas and the APRA HARBOR areas on GUAM. These models were issued to fire support ships and to transport divisions for the briefing of the boat officers and crews of that division. The comments of their usefulness will necessarily depend upon the reports of those using them; these reports have not yet been received.

2. Rubber Relief Models

The Atlantic Amphibious Training Command constructed fifty rubber relief models of the APRA HARBOR area of GUAM. These were delivered to the Commander Task Force FIFTY-THREE for distribution to ships and units of his Force. The report on them will be made by Commander Task Force FIFTY-THREE.

All these relief models were made from the latest and best information available. Ground forms were shown as depicted on the published 1:20,000 topographical maps.

3. Recommendations as to the replacement of plastic relief models by rubber relief models which can be turned out easier and faster and are much easier to handle and stow will necessarily have to await further reports from those using them. If the rubber models prove to be equally as good, their use is recommended.

IV. PHOTOGRAPHIC INTELLIGENCE

1. Photographic Reconnaissance.

(a) Photographic coverage of objectives in the MARIANAS for FORAGER Operation was the most satisfactory that has been obtained in the Central Pacific Area to date. While complete vertical coverage was not received until too late for the preparation of the basic maps and charts, the early oblique and later complete vertical coverage were excellent. During the operation coverage of all types left little to be desired.

(b) Considerable improvement has been made in the coordination of requests for photo coverage from different agencies and the selection of photographic objectives which cover essential areas and are within the bounds of practical considerations.

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Previously, agencies requesting photo coverage have felt that their responsibility had been discharged with the submission of a request and, in order to insure full coverage have made exorbitant demands in the hope that the percentage of coverage actually received would fill their needs.

The indoctrination of requesting agencies in the limitations of photographic reconnaissance and the requirement that their requests be made on a logical basis have resulted in a more real istic approach to the problem and better results with less preliminary and time-consuming adjustments between requests and missions actually flown.

(c) Photo reconnaissance prior to departure from PEARL was handled by PRISIC Section of CinCPac, upon request to CinCPac.

After departure from PEARL requests were made to Commander Task Force FIFTY-EIGHT and Commander Task Group FIFTY-TWO POINT FOURTEEN (CVE's), and photographs were delivered as directed by Commander Joint Expeditionary Force either in negative or print form.

(d) After arrival at the objectives the following sources of photographs were made available.

(1) A photographic plane was stationed in the vicinity of the objective under the direction of Commander Support Aircraft for the purpose of providing any photographs desired during the operation. Negatives were dropped either at command posts ashore or to designated ships where they were developed for immediate use by troops or forces afloat.

(2) Additional planes under the direction of Commander Aircraft ashore were available at all times for special missions either at the local objective or in other areas. Early in the operation TBF's were used which were later supplemented by P-38's which proved to be most valuable, particularly for low altitude oblique work.

(3) Special photographic B-24 planes were used for missions for which other planes were not suitable, such as vertical coverage for mapping purposes. These were provided by Commander Task Force FIFTY-NINE from the VD-4 Squadron and were of great value.

(4) Escort carrier planes were also used as necessary and were found to be valuable in securing motion and color film in addition to black and white aerial photos. In this work, a Chief Photographer attached to the staff of the Commander Amphibious Forces, U. S. Pacific Fleet was provided. His assistance was of value because of his expert knowledge of photography and his knowledge of the particular information desired on each flight.

(5) Special photo missions, usually involving flights where protection was required, continued to be supplied by Commander Task Force FIFTY-EIGHT upon request or by Commander Task Group FIFTY-NINE POINT ONE at ISELY Field.

(6) In connection with all photographic work at the objective and prior to arrival, VD-4 at ENIWETOK was of great assistance. Of special mention was the low vertical coverage of GUAM and TINIAN and the mosaics laid from them.

2. The following is a summary of photographic coverage received with comments on type, quality, nature of coverage, and use made of photographs.

(a) Photographs Received Prior to Dog Day.

(1) 22-23 February - Carrier Strike - Aerial Photographs.

Incomplete vertical coverage of SAIPAN and TINIAN with changing altitude, not well adapted to mapping but adequate for interpretation of all important areas. Excellent obliques, of which YORK 9C was used in multilith form for distribution as Appendix 14 of the intelligence Annex.

(2) 18 April - VD3 - Aerial Photographs.

First complete vertical coverage of SAIPAN and TINIAN, excellent, scale 1:10,000, 10-20% cloud cover. The interpretation of these photos was the basis for the intelligence reports disseminated by this activity before the operation was mounted.

(3) 25 April - VD4 - Aerial Photographs

First vertical coverage of GUAM, excellent, scale 1:10,000, 95% complete coverage, bad cloud cover.

(4) 29 May - VD1 - Aerial Photographs

Complete vertical coverage SAIPAN, excellent, scale 1:10,000, and spot photos of TINIAN. These sorties were received at the staging area, and the additional information obtained from them was overprinted on target maps and distributed.

(5) 11 - 12 June - Aerial Photographs

Excellent large-scale verticals and obliques of the beach and reef areas on SAIPAN and the USHI POINT Airfield areas on TINIAN taken during the Task Force FIFTY-EIGHT strikes preceding the assault. Additional information on SAIPAN was obtained from these photos; disseminated by despatch to the force.

(6) 2 - 29 April - U.S.S. GREENLING - Submarine Periscope Photographs

Submarine periscope photos of SAIPAN, TINIAN and GUAM taken by the U.S.S. GREENLING. Excellent photos from which panoramas were laid and distributed to all fire support ships before the operation was mounted because of their value in showing landmarks.

(b) Photographs Received After D Day

(1) SAIPAN and TINIAN - Aerial Photographs

(a) Sorties were flown daily during the opera-

tions on SAIPAN and TINIAN and were used by troops ashore for immediate tactical intelligence. The earlier sorties of this group were unsatisfactory, being too piecemeal and badly exposed and of too small a scale. In order to acquire photographs which would be of the greatest use to all concerned during the campaign, Force Intelligence sent two photographers on temporary duty to the U.S.S. FANSHAW BAY and later to the U.S.S. WHITE PLAINS to carry out specified missions. Their work was most satisfactory due partly to the fact that they knew exactly what was required for best results, and the work was done in close cooperation with the G-2 Section, V Amphibious Corps, on missions of mutual interest to both Force and Corps.

The subjects covered by Force photographers ranged from Dog Day, How Hour invasion photographs to missions made for intelligence purposes over SAIPAN, TINIAN and AGUIJAN ISLANDS. In all, 38 missions were flown.

(b) 6 July - VD4

Excellent complete vertical coverage of TINIAN which was used in preparing a final overprint of new and changed installations for the intelligence map distributed to all units making the assault on TINIAN. Prints from this sortie were sent to INTERPRON TWO who laid an excellent mosaic from them. The special grid was superimposed on the mosaic and it was given wide distribution by Task Force FIFTY-TWO in multilith form as a photomap for use in TINIAN assault.

(2) GUAM - Aerial Photographs

(a) 4 July - VD4

Excellent vertical stereo coverage of the beach areas and AGAT, AGANA, and OROTE areas.

(b) 1 - 12 July

Excellent verticals and obliques taken during preliminary bombardment of the same areas as above. All negatives and photos of the two above groups were sent to Task Force FIFTY-THREE and distribution made by that unit. The interpretation of these photos was used to prepare a Special Intelligence Map which was distributed to fire support ships with 700 copies to Commander Task Force FIFTY-THREE for further distribution.

(3) Ground Photographs

From 21 June to 18 July photographers were sent to SAIPAN ISLAND in order to get an estimate of installations for the purpose of comparing our intelligence with the actuality, and to obtain for Task Force FIFTY-ONE a record of the operation. Coverage included the entire west coast, south coast to ISELY Field, north central portion, and east coast north of MAGICIENNE BAY.

On 29 July a photographic mission was sent to TINIAN to check Force Intelligence. Areas covered included WHITE Beaches, USHI POINT airfield, and the areas northwards.

3. Distribution of Photographic Material

(a) Photographs Distributed

Photographs were printed and distributed by Force Intelligence upon request during the operation. Upon receipt of Dog minus Fifteen coverage of SAIPAN at the staging area, additional sets of prints were printed for distribution to all major commands, ground forces as well, and to fire support units. Assorted sets were printed for distribution to all transports and troop units aboard.

On Dog minus One Day the Dog minus Three coverage was received with 6 sets of prints. These were immediately distributed by destroyer to Marine Division and Corps Commanders, and Commander Task Group

FIFTY TWO POINT TWO. (Additional assorted sets were then printed and distributed to Transport Division Commanders and Combat Team Commanders.

From Dog Day on, till the completion of the operation at TINIAN, photographs were printed daily from sorties flown on the previous day, and maximum distribution made.

In addition to the above, numerous special requests for sorties were made by new units or ships reporting. These were printed to the maximum of our facilities.

An attempt was made to standardize numbers of sets sent from one time to another to separage organizations. This was accomplished during the TINIAN sorties. Unless additional requests were made, 2 sets of all photographs on SAIPAN, TINIAN and ROTA were sent to Commander Air Defenses, MARIANAS; 2 sets to Group TWO, Amphibious Forces, U. S. Pacific Fleet; 2 sets to G-2, FIFTH Amphibious Corps (ashore Commander Task Group FIFTY-SIX POINT ONE); 1 set to G-2 FIFTH Amphibious Corps (ROCKY MOUNT - Commander Task Force FIFTY-SIX). When the Corps Engineer units were set up ashore, about Dog plus Five Day, all SAIPAN work was turned over to them for printing to cover the immediate needs for tactical intelligence.

In the case of GUAM photographs, with few exceptions all photographs and negatives were sent to Commander Task Force FIFTY-THREE for further printing and distribution, with sufficient copies retained for Commander Task Force FIFTY-ONE and Commander Task Force FIFTY-SIX.

On July 31, a two volume book of approximately 175 photos was prepared and compiled by this section which included photographs of the Amphibious Forces, U. S. Pacific Fleet, carrying out the invasion of SAIPAN both afloat and ashore. The book is purely of historical interest and was given limited distribution.

(b) Processing and Printing

During FORAGER the following totals of photographic work were processed and printed.

(1) Still photos taken by Force Photographers - SAIPAN - 929, TINIAN 110.

(2) Aerial exposures, SAIPAN and TINIAN - 7,061.

(3) Prints of aerial and ground photos distributed (this includes 12,305 8"x10" prints processed on carriers by Force photographers) - 62,294.

(4) Motion picture film 16mm and 35mm, black and white, and Kodachrome - 9,850'.

4. Recommendations for Future Operations

(a) It is recommended that arrangements for taking stereo-verticals for mapping purposes be made during initial strikes on future objectives or probable objectives. This should be done before or while obliques are taken, as obliques have maximum value only after ground control (obtainable only from verticals) has been established. Mosaics and maps made from these are of primary importance and the photos from which they are made must be obtained at the earliest possible date because of the length of time required to produce the maps.

During FORAGER the above procedure was handled in reverse order, excellent obliques being obtained two months in advance of complete vertical coverage.

The verticals used for mapping should be at a scale of 1:10,000 or smaller, with a 60% overlap of exposures and runs.

(b) Verticals taken after the first mapping runs and shortly before the assault should be taken at larger scale, up to 1:5,000, with 60% overlap between exposures and runs. It is suggested that efforts be made to obtain verticals earlier or later in the day than 1000-1400. Photos taken at noon suffer from a lack of shadow definition and, when taken of reef areas, glare on the water surface obscures underwater and bottom detail.

(c) Oblique Photographs

Obliques should include a complete coverage of beach and other important areas taken just off the water or at an angle of about 5° with a 60% overlap for stereo study. At this angle they have their greatest value both for beach study and for distribution as panoramas.

Photos of this type give much greater detail than submarine periscope photos and it is planned to use them instead of sub photos in the preparation of panoramas for the use of fire-support ships and assault landing craft. The slant range of such obliques should not be more than 1,500' with a 24" F.L. camera.

It is important that care be taken to reduce the glare on water surfaces of these photos by limiting oblique missions to the time of day at which glare will be at a minimum and by making all photos in directions away from the sun.

(d) It is recommended that Tri-Metrogon and Sonne-Camera experiments in photographic determination of underwater depths be continued in rear areas. As soon as satisfactory techniques have been developed it is recommended that photo coverage with cameras of these types be obtained of future targets so that the additional vital information on reef water depths made possible by the new techniques can be used in future operations.

(e) That one sortie of low verticals (scale about 1:5,000) be taken of the objective before the operation is mounted, so that detailed studies of beaches, reefs, installations can be made, and distribution for study by all units while enroute be facilitated.

(f) That drops of last minute strike photos continue to be made on the Force Flagship for distribution of information by despatch.

NOTE: These recommendations are supplementary to those made in Commander Joint Expeditionary Force Report of FLINTLOCK Operation.

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5. Photo Interpretation Activities.

(a) The following photographic interpretations were made by Force Photo Interpretation Officers for FORAGER Operation:

(1) SAIPAN - From Photos of February 22, 1944.

Incomplete coverage - photos not ideal for interpretation. First report on MARIANAS objectives.

(2) TINIAN - From Photos of February 22, 1944.

Incomplete coverage - photos not ideal for interpretation. First report on MARIANAS objectives.

(3) SAIPAN - From Photos of April 18, 1944 (VD3)

Cloud cover of central portion but coverage complete and good conditions for interpretation of unclouded area.

NOTE: Mosaic laid by PRISIC from these photos.

(4) TINIAN - From Photos of April 18, 1944 (VD3)

A minimum of cloud cover - photos excellent for interpretation.

NOTE: Mosaic laid by PRISIC from these photos.

(5) SAIPAN - From Photos of May 29, 1944 (VD4)

Complete coverage with minimum of cloud cover.

NOTE: Mosaic laid by INTERPRON TWO from these photos actually made on June 12, 1944.

(6) SAIPAN - From Photos of Fast Carrier Strike - Dog minus Three and Four.

Interpretation made on Dog minus One and sent out by despatch to all concerned.

(7) TINIAN - From Various Coverage Flown by CVE's between 18 and 24 June, 1944.

NOTE: Interpretations were made by sections because of the limited area covered by eachh mission. This information was passed to Commander Support Aircraft and Force Gunnery Officer by target areas.

This information was finally compiled and overprinted on 24 June, Force Intelligence Map.

(8) TINIAN - From Photos of July 5, 1944.

Excellent coverage of 1:5,000 scale - ideal conditions for interpretation and thorough study was made by Force Interpretation Officer in conjunction with Interpretation Officer from Group TWO.

NOTE: Mosaic laid by INTERPRON TWO and later rephotographed and lighograph ed by U.S.S. ROCKY MOUNT Reproduction unit at request of G-2, V Amphibious Corps.

(9) GUAM - From Photos of 23 June, 1944

Interpretation of OROTE Peninsula area, including APRA HARBOR, AGANA TOWN Area, and AGAT TOWN south to FACPI POINT.

(b) The following beach studies and diagrams were made for and during FORAGER Operation:

(1) SAIPAN - Preliminary Study From Fast Carrier Strike of February 22, 1944.

All beaches not covered by vertical sorties but YORK 9C gave excellent oblique c overage of all beaches (Information to Planning Section).

(2) TINIAN - Preliminary Study From Same Strike of February 22, 1944.

Best coverage was BKHL 52, BKHL 49 (Information to Planning Section)

(3) GUAM - Preliminary beach study from photographs taken of AGAT TOWN and immediate area and included in GUAM Intelligence Bulletin distributed by Force Intelligence.

(4) TINIAN - Detail Study of Beaches From Photos of February 22.

Photographs of future landing beaches (Beaches had not been designated)(Information to Planning Section).

(5) SAIPAN - Detail Study of Beaches from Photos of February 22, 1944.

Giving land marks and including photographs of future landing beaches. The beaches had not been designated as to color. (Information to Planning Section).

(6) SAIPAN - Detail Study From Photographs of 18 April, 1944.

Detailed description of designated beaches.

(7) SAIPAN - Detail sketches Made From Photographs of 18 April, 1944.

Special attention to land marks.

(8) TINIAN - Detail sketches of beaches as above.

(9) SAIPAN - Beach sketches prepared for use by Underwater Demolition Teams from blow-ups of verticals of 18 April with particular attention paid to reef conditions plus distinguishing landmarks and installations ashore, with the gunnery target grid included.

(10) TINIAN - Detail study of beaches from photos on hand up to June 19. Request made by Admiral ROYAL for availability of landing craft and this information was added. (Beaches designated).

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(11) TINIAN - From photographs on hand, especially low verticals 12 July - Sketches made of all available beaches.

(12) TINIAN - 1 2 July

Sketches of 3 July improved upon by survey made by Underwater Demolition Teams of beaches during night reconnaissance. (Information to Group TWO Intelligence Officer).

(c) PRISIC and Interpretation Squadron TWO interpretation reports were used in nearly all cases as a check with Force Interpretation. In no cases were these reports taken for granted, but always used in conjunction with all available information. In certain instances where speed was of the utmost importance, PRISIC and INTERPRON TWO reports were of the greatest importance.

(d) Beach defense inspection as well as inspection for mines, both land and water, was, at all times, included as a vital part of Force Intelligence, and photographs were taken specifically for that purpose. Many small boat obstacles were observed through close inspection of low oblique photographs especially at GUAM.

NOTE: A special report on actual number and location of all types of mines in included in this report.

(e) A photo interpretation officer was ordered to the U.S.S. LOUISVILLE in order to make a final interpretation for the use by the Underwater Demolition Teams of photos taken on Dog minus Three Day. A drop was made of these photos to the LOUISVILLE on Dog minus Two Day and a report sent to each Underwater Demolition Team by evening of that day. This officer was given transportation to this assignment aboard the U.S.S. GILMER, on which the Underwater Demolition Teams' Commanding Officer was present, in order to brief the officers and men of the Underwater Demolition Teams on the beach conditions and landmarks.

Another Photo Interpretation Officer was temporarily attached to the Staff of Commander Cruiser Division SIX from 5-15 July, during the preliminary bombardment of GUAM Island. This officer made on-the-spot interpretations, finding new targets and evaluating damage by Naval and Air bombardment.

(f) Generally speaking, there was an overestimation of the strength of beach defenses and an underestimation of inland defenses, due to the mobility of the Japanese weapons. Mortars and mountain guns were very difficult to locate because of high altitude photographs and continual clouded areas obscuring most of the highlands of the islands. Undoubtedly in the future more attention will be paid to activity around caves and other hiding places. Camouflage, other than dazzle paint on buildings, was limited to nets and covering with foliage. The painting was unsuccessful in hiding anything from photographic inspection and the netting and natural foliage hides were in many instances unsuccessful in causing installations to remain unreported. The lack of track discipline and incomplete coverage of installations with nets or natural camouflage materials were the two chief Japanese contributions to the lack of successful camouflage.

The location of prepared A.A. and DP positions, as well as trenchworks and pill-boxes, was on the whole satisfactory. All of the large caliber guns in prepared positions were located from photographs and designated to type and size in as satisfactory a manner as was possible. Ground photographic missions were carried out to supplement the above comparison by actual locations of guns including photographs of the installations.

The information contained in the beach studies produced by Force Intelligence was found to be substantially correct. The reports of the Underwater Demolition Teams and Marine Reconnaissance Teams substantiated these reports.

In the preparation of final beach studies on the TINIAN Beaches, seven SAIPAN CHAMORRO prisoners were interrogated. These men had fished extensively off

the reefs at all the possible beaches on TINIAN and their information was used in conjunction with other information.

V. RECONNAISSANCE (Other than Air)

1. Submarine Reconnaissance

Submarine re connaissance was again used to good advantage. Reports and photographs were received from the U.S.S. GREENLING which contained much information of value. This information and prints of the photos laid in panorama were given wide distribution. Much of this information was chiefly a verification of previous information.

2. Reconnaissance by the Underwater Demolition Teams

(a) SAIPAN - On Dog minus One Day the Underwater Demolition Teams made extensive reconnaissance's of the reef and approaches to the landing beaches under cover of naval bombardment. This physical reconnaissance was for the purpose of locating mines, obstacles, and also reporting on the nature of the reef. This report was sent out by despatch on Dog minus One Day, with charts and drawings and the written re port being submitted upon arrival of the attack group.

(b) TINIAN - The Underwater Demolition Teams, in conjunction with the Corps Reconnaissance Company, made a night reconnaissance prior to Jig Day of beaches WHITE ONE and TWO and beach YELLOW to locate obstacles, mines, and determine the nature of the reef and beach. This reconnaissance proved to be most successful.

(c) GUAM - As at SAIPAN, the Underwater Demolition Teams made reconnaissance of the reefs and approaches to the landing beaches prior to William Day. Obstacles were cleared and accurate reports of reef and beach conditions were made; this information being disseminated to all concerned.

VI. JICPOA TEAMS

Four teams of various sizes were assigned by JICPOA to Task Force FIFTY-ONE for the purpose of assisting in the collection and expediting intelligence material to the rear areas

for further study and other assistance on the spot to local troop intelligence officers. In addition to the above, crash intelligence teams were assigned to specialize in aviation intelligence.

These teams reported to Commander Task Force FIFTY-ONE for duty. After necessary instruction and indoctrination on the operation, they were further assigned to Task Force FIFTY-SIX for further assignments to the assault divisions. These teams worked in close cooperation with the division intelligence officers and the flow of material back to JICPOA was expedited by Commander Task Force FIFTY-ONE.

These teams did an excellent job, and their use in future operations is highly recommended.

VII. LANGUAGE OFFICERS

1. There are no language officers permanently assigned to the staff of Commander Amphibious Forces, U. S. Pacific Fleet and the Group Commanders. The reason for this is that during the interim period between operations these officers are much more valuable to JICPOA. A system has been worked out whereby language officers are temporarily assigned to the staffs of Commander Amphibious Forces, U. S. Pacific Fleet and the Group Commanders. During this operation two language officers were temporarily assigned to each of the staffs. Their services were most valuable especially in translation of documents of immediate naval interest and interrogation of certain POW's.

2. Material Examined

As might have been expected, the quantity and quality of documents and material captured and examined in the field during this operation exceeded anything experienced in previous campaigns. For purposes of clarity items examined by this Section will be classified in three groups.

(a) Maps and Charts

Hydrographic charts of the entire east coast of JAPAN proper - HOKKAIDO, HONSHU, SHIKOKU and KYUSHU - were found in abundance. Hydrographic and air charts of the main islands of the NANPO SHOTO, including detailed studies of the BONINS and VOLCANO ISLANDS, passed through this section to JICPOA. A

complete set of hydrographic and air charts and topographic maps of the MARIANAS were taken; some were immediately translated. Maps and charts of the Western CAROLINES - PALAU, ULITHI, YAP, and WOLEAI, etc., were despatched by air to JICPOA. Hydrographic and air charts of the Dutch East INDIES and Northern AUSTRALIA complete the Japanese conception of north-south sea lanes passing through SAIPAN. Miscellaneous charts of future value covered generally the PHILIPPINES, FORMOSA, and the EAST CHINA coastal seas. Sailing Directions and Light House Tables for a great part of the Western and Southwest Pacific were also taken.

(b) Other Documents

Among innumerable others, operational orders originated by Commander in Chief, Combined Fleet and Commander Central Pacific Area Fleet; T/O's for forces in the Central and Western Pacific; sketches and outlines of the disposition of Japanese forces and defenses on the garrisoned islands of the NANPO SHOTO and MARIANAS; and many documents of interest to aviation intelligence were gathered in. A rich haul in documents of a technical nature will undoubtedly fill out many a gap in the intelligence mosaic.

(c) Material

This Section, functioning as a quasi-crash intelligence group for forces afloat, salvaged or took into custody and forwarded to JICPOA material of intelligence value. A self-sealing gasoline tank an unexploded aerial torpedo, and a bomb sight, among other items, were rescued for various intelligence agencies. Arrangements were made by this Section to transport to PEARL HARBOR by CVE 23 ZEKES and 1 KATE taken in good condition at ASLITO plus engines, spares, etc. As thorough an examination as possible of the captured material was made.

3. Translations

Translations and reports prepared by Force Language Officers were for the most part limited to items which possessed information of strategic and tactical value to

the broader phase of combat operations. Documents of ground operational value were retained by G-2, V Amphibious Corps; those of operational interest in other theaters of operations were immediately dispatched to JICPOA.

(a) Most Important Translations Were:

(1) Military Topographic Map of GUAM.
(2) Map showing military dispositions on GUAM (translated and prepared in conjunction with G-2, V Amphibious Corps).
(3) Some characteristics of the Y-20 Land Bomber.
(4) Plan for the construction of mooring buoys in APRA HARBOR.
(5) Report on the construction of mooring buoys in APRA HARBOR.
(6) Military topographic map of TINIAN including overlay of Japanese military dispositions as of 31 March, 1944.
(7) Japanese dispositions on TINIAN as of 19 March.
(8) Disposition of Japanese forces in Central Pacific Area.

(b) Interrogation and Special Reports

(1) Interrogation of JUAN SANCHEZ, CHAMORRO, on situation at GUAM (in conjunction with G-2, V Amphibious Corps).
(2) Supplementary Interrogation of JUAN SANCHEZ, CHAMORRO, on military installations at GUAM (in conjunction with Force A.P.I. Officers).
(3) Interrogation of NODA, MITSUHARU, Chief Yeoman to Vice Admiral NAGUMO, CHUICHI (in conjunction with Commander FIFTH Fleet, G-2, V Amphibious Corps, and independently).
(4) Interrogation of JUAN SEPELA, CHAMORRO, on TINIAN WHITE Beach ONE.
(5) Interrogation of THREE CHAMORROS and ONE KANAKA on TINIAN Beaches (in conjunction with Force A.P.I. Officers).
(6) Interrogation of THREE CHAMORROS on TINIAN Beaches YELLOW and WHITE TWO.
(7) Translations of Interrogation of Japanese aviator made by Chinese Seaman aboard U.S.S. IDAHO.

4. Other Activities

The activities of Force Language Officers were as broad as the scope of Japanese language intelligence. Language assistance was furnished bomb-disposal and material salvage units. POW's brought to and escorted from the ROCKY MOUNT were taken in hand by Force Language Officers. Language aid was furnished medical officers, and the Civil Affairs Agency; in brief, language assistance was rendered literally wherever the language officer appeared.

Souvenirs brought aboard the flagship or forwarded by units afloat cleared through this Intelligence Section. Documentary material acquired in the course of naval activities was forwarded to Force Intelligence for examination; if warranted, dissemination of the findings was undertaken.

5. Recommendations

(a) When translations of documents involving general operations are undertaken in the field, the several intelligence sections in the field and JICPOA should be notified. Duplication of effort will thus be eliminated.

(b) Documents of interest to both Force and Corps were sometimes retained for study by Corps. It is recommended that Force be notified of the existance of the document so that it can be studied during the interims when Corps is not using it rather than when it is finished with it.

(c) It is considered that the number of language officers were inadequate for such a large scale operation. It is recommended that the numbers assigned to Forces afloat be increased, allowing sufficient for transport division commanders staffs, and others to be available [redacted] POW ships when the troops ashore are unable to [redacted]

6. Souvenirs

(a) Remarks

The greatest difficulty in the path of the language officer during this operation, as in all previous

operations, has been the souvenir-hunter. The scope of the souvenir-hunters reached overwhelming proportions because of the number of participants in the operation. Also, for the first time during the war American Forces landed on islands with preponderant Japanese civilian populations. The ratio of military property to civilian property was, thus, far less than during the days of atoll warfare and, thence, the sources for souvenirs have considerably expanded. This resulted in the practical disappearance of any dividing line between legitimate souvenir-hunting and unrestrained pillaging and looting. The desire for souvenirs which activated most participants in the operation led to needless inexcusable loss of life, time, and effort. The need for a thorough reexamination of the problem is apparent and cannot too strongly be urged.

A list of the items taken as souvenirs would unquestionably resemble a Sears-Roebuck catalogue. Language officers were prepared to examine the military property of an organization of twenty-odd thousand Japanese troops, but they never expected to be confronted with the entire gamut of the personal property of more than fifteen thousand civilisans. The necessity of allocating time for the examination of such items as civilian clothing, cooking utensils, household furnishings, the contents of libraries, schools, and stores, greatly hampered the smooth and systematic arrangement established beforehand for the handling of intelligence materials.

A significant observation during FORAGER is the marked difference in the degree of intelligence indoctrination of land assault forces and forces afloat and of the garrison elements. There is no doubt that assault teams have learned to a great extent to appreciate the value of language intelligence units ashore. Their cooperation was commendable.

On the other hand, cooperation of personnel afloat has been very meager. The average member of a ship's company is entirely ignorant of language

intelligence and even when explained by language officers the purpose of this type of work, is exceedingly reluctant to part with his souvenir. This, of course, may be explained by the fact that he has rarely seen the results of language intelligence in operation. An exception to the above statement is the unvarying intelligent action of the commanding officers of Fleet Units. During FORAGER there have been countless instances when ship's captains have gone to great trouble and, at times, subjected themselves and their commands to great trouble in order to recover for intelligence, documents from crashed enemy planes, life-rafts occupied by the enemy, debris from submarines, etc. Some of the most valuable intelligence finds during FORAGER have been received from such sources. Recovery of the above type of material undertaken independently by subordinate officers and men has usually resulted in the disappearance of the documents. Indoctrination of all personnel afloat is absolutely necessary. It must be made clear that material forwarded to intelligence is primarily for purposes of examination and not retention. Once it is understood that many items are returned and, if not, replaced, greater cooperation will result.

The number of souvenirs pouring aboard ship has reached astounding proportions. It may safely be stated that no more than twenty percent of souvenirs aboard ship has been passed by Joint Intelligence. As a result there have been and there will continually recurr instances when documents of vital operational value have cleared the combat area and when discovered aboard have, because of the passage of time, lost their operational value. Thanks to vigilant action on the part of some ship's officers and censors, documents have been taken in hand during the return voyage and dispatched immediately to interested agencies in the theater of operations. Sometimes the documents have been of value; at other times, the lapse of but a few days has meant utter loss of value of the document as a source of operational information.

(b) Recommendations

(1) Indoctrination of personnel afloat is absolutely necessary. Lack of cooperation with Intelligence is seen to be mainly due to ignorance of regulation. A persistant campaign to explain the purpose for intelligence examination of souvenirs may bring improvement.

(2) A more specific definition of the legitimate souvenir is required. The status of civilian personal property must be defined.

(3) Interception of souvenirs at ship's gangways by inspection of returning personnel.

(4) Potential souvenirs picked up in the water must be forwarded to the Intelligence Section afloat or ashore, depending upon facilities for delivery available.

(5) The stationing of Military Police and Shore Patrols at all boat landings to intercept intelligence material.

(6) Censors aboard ship must be more strictly enjoined to remove from mail all unstamped souvenirs. Their personal opinions about the value of the souvenir must not be entertained since in many cases their appraisals are sheer guesswork.

It is felt that the measures recommended in (3) and (5) above will help in large measure to eliminate the loss of intelligence data since the presence or absence of the official stamp will reveal immediately conformity with or infringment of regulations.

VIII. BEACH DEFENSES - SAIPAN

1. General

In general the beach defenses were considerably weaker than expected based on photographic interpretation and past experiences at KWAJALEIN and TARAWA.

INTELLIGENCE REPORT

The principal beachline defenses consisted of pillboxes machine guns, anti-boat guns, rifle trenches, anti-tank trenches, etc., but in much smaller quantities than heretofore encountered. The main defenses of the beach areas originated from the ridges which are strategically located for use of mortar, artillery, etc. The Japanese took full advantage of this and concentrated their mobile weapons to meet our attack. Sitings had been made as range markers were found along the reef and at intervals between the reef and shore. Observations posts were located on the ledges overlooking the entire beach areas. These were factors which made the Japanese artillery so effective.

Larger caliber guns from 75mm to 6" were found as indicated on intelligence maps, as were guns of smaller caliber, but most of these had been put out of action by preliminary naval bombardment and some were not completely assembled. A number of large guns were found lying on freight cars, on the ground, and in the GARAPAN Naval Depot with no mounts available. Undoubtedly these guns were to be installed at a later date.

There were surprisingly few concrete pillboxes and blockhouses found on the beaches.

Initial landing forces encountered very little resistance from the beach-line defenses, but later encountered serious resistance from the ledge and mountain defenses directed toward the beaches.

Preliminary studies had located practically all defenses of importance and the Japanese use of the hills and ridges for mobile artillery was anticipated.

Special detailed studies of installations and defenses are being prepared for distribution by other agencies.

2. Mines - SAIPAN

(a) Land mines were found on the following beaches:

(1) Beach RED THREE (Target Area 170 M, R, W)

Approximately 60 mines were found placed at intervals of 10 feet along the high water line and inland along the line of brush growth.

(2) TANAPAG TOWN Beach (1,300 yards north of Seaplane Base)

(a) Target Area 247 H to 258 R.

Anti-boat mines were set in a single row along the high water line 25 to 40 feet apart.

(b) Target Area 258 Q.

One hundred fifty 60 Kg. aerial bombs were found buried nose up spaced 20 to 40 yards apart.

(3) Beach WHITE ONE (Target Area 109 D, E, J, and 110 F, K).

Twelve anti-boat mines were set in a staggered line 4 to 8 feet inland of the high water line approximately 15 to 30 feet apart.

(4) Beach PURPLE ONE (Target Area 164 N).

22 anti-boat mines were found in a row approximately 10 yards inland from the high water line and spaced 15 feet apart. No attempt was made to camouflage them.

(5) Beach PURPLE TWO (Target Area 166 F, G and 165 J)

(a) Target Area 166 F, G.

52 anti-boat mines were found 10 yards inland from the high water line spaced 15 feet apart. They were unburied but were camouflaged and set immediately behind a barbed wire obstruction.

(b) Target Area 165 J.

An undetermined number of anti-boat mines were found in this area.

(6) Beaches BROWN ONE and TWO (Target Area 190 L, O, W; 198 N, T; 199 U).

Ten anti-boat mines and several sea mines were found unconcealed behind the beaches. Their exact locations are not known.

(b) Water Mines Were Found in the Following Locations:

(1) MAGICIENNE BAY

A total of 27 moored mines were found in this area. Some of these were found in water 5 feet deep offshore of beaches PURPLE ONE and TWO

(2) Offshore of BEACHES BROWN ONE and TWO

19 moored mines were swept from the approaches to beaches BROWN ONE and TWO.

(3) TANAPAG HARBOR

3 moored mines were swept from the channel and harbor, then destroyed.

3. Mines - TINIAN

(a) Land mines were found as follows:

(1) Beach WHITE TWO (target Area 639)

An undetermined number of buried mines were found immediately inland of the highwater line.

(2) RED and GREEN BEACHES, TINIAN TOWN (Target Areas 520, 526)

Many mines were found buried to horn depth with iron tip rods lashed to the horns. An aerial torpedo with electric detonating attachment controlled from a point 400 yards inland was found on the dock.

(b) Water Mines Found:

(1) Beach YELLOW ONE and TWO (Target Areas 615 and 622).

A total of 16 moored mines were swept from this area.

4. Mines - GUAM

There is no definite information available at this time concerning beach and underwater mines, but many underwater obstacles were noted in aerial photographs, some of which undoubtedly were mines. A report of these will necessarily have to be made by Commander Task Force FIFTY-THREE.

IX. INTELLIGENCE PERSONNEL, SUBORDINATE COMMANDS, RELATIONSHIP WITH.

1. Intelligence Units in Subordinate Commands.

As the FIFTH Amphibious Force has increased in size and complexity it has been necessary to greatly increase the intelligence organization within the Force as a whole and to assign new units to subsidiary commands.

The object being to insure as far as possible that necessary information reaches all who should have it, and that it be used to best advantage. This applies to details of the objective and the operation plan prior to the attack and all information of value to future operations which can be obtained while at the objective.

In addition to the staff of the Commander Amphibious Forces, U. S. Pacific Fleet, intelligence personnel are being provided for the staffs of Amphibious Group Commanders, Transport Division Commanders, Transport Group Commanders, LST Flotilla Commanders, LST Group Commanders, and individual transport commanders.

During FORAGER Amphibious Group Commanders were fully supplied and, as far as the availability of suitable officers permitted, intelligence personnel were provided to Transport Group Commanders, Transport Division Commanders, and LST Flotilla Commanders. Preliminary reports indicate that these

officers were of considerable value and that the need for further enlargement of the intelligence organization to additional units is clearly indicated.

2. Amphibious Group Intelligence Personnel

During FORAGER the intelligence staffs of Amphibious Groups (Commander Task Force FIFTY-THREE, Commander Task Group FIFTY-ONE POINT ONE, Commander Task Group FIFTY-TWO POINT TWO) were in full operation and engaged in all normal intelligence functions. Their relationship to Commander Amphibious Forces, U. S. Pacific Fleet, staff in regard to supply of intelligence material was as set forth below.

(a) Commander Group ONE, Amphibious Forces, U. S. Pacific Fleet and Commander Joint Expeditionary Force Reserve (Commander Task Group FIFTY-ONE POINT ONE).

Commander Task Group FIFTY-ONE POINT ONE being present up till the time of departure from PEARL, close liaison was maintained. All information was made available and the facilities of the Force flagship were also used. Distribution of maps, charts, and mosaics was made by this command to the ships and units of the Force Reserve, since all ships and units of the Force Reserve were present at PEARL. Too, with the facilities available, distribution directly from this command was more simplified and easier handled. This was in agreement with the Intelligence Officer of Commander Task Group FIFTY-ONE POINT ONE who assisted with his personnel in making this distribution.

(b) Commander Group TWO, Amphibious Forces, U. S. Pacific Fleet (Commander Task Group FIFTY TWO POINT TWO).

Commander Task Group FIFTY-TWO POINT TWO being present at PEARL, the closest liaison possible was maintained. All intelligence material was made available for study. The requests for printing, photographs, and other required intelligence material were coordinated and accomplished as best possible with the facilities available. Distribution of intelligence material was made by this command to ships

and units of this group.

When Commander Group TWO, Amphibious Force, U.S. Pacific Fleet became Commander Task Force FIFTY-TWO on 15 July for the TINIAN Operation, every effort possible was made by this command to print the desired charts, maps, and drawings and deliver the necessary photographs. The facilities of the flagship (U.S.S. ROCKY MOUNT), and the draftsmen, and photographers of this command were made available and used to the maximum to produce the additional required intelligence material. All of this work was done in close cooperation with the Group Intelligence Officer. During the entire operation copies of all photo sorties printed by the flagship were delivered to the Group Intelligence Officer.

Facilities on board the U.S.S. CAMBRIA (Commander Group TWO, Amphibious Forces, U. S. Pacific Fleet Flagship) were inadequate to handle the requirements for photographic work and printing. It is recommened that if an AGC is not available to a Group Commander, then his flagship should be outfitted with a photographic laboratory and a map reproduction unit, both of which are vital in amphibious operations.

(c) Commander Group THREE, Amphibious Forces, U. S. Pacific Fleet (Commander Task Force FIFTY-THREE).

Close personal liaison was maintained till the time of the departure of Commander Task Force FIFTY-THREE for GUADALCANAL. Prior to the intelligence officer's departure, the requirements for, and the type of, maps and charts were agreed upon. An officer from that section was temporarily assigned to the Force Staff to maintain liaison and to expedite the delivery of additional material and information to GUADALCANAL.

As maps, charts, etc. were printed sufficient copies were forwarded to the Group Intelligence Officer for distribution to Task Force FIFTY-THREE. Not only was material on GUAM forwarded, but also sufficient copies for all material on SAIPAN and TINIAN. This following the policy of providing all

ships and units of the Joint Expeditionary Force with at least one copy of all intelligence material.

During the occupation of SAIPAN numerous documents and maps of intelligence value on GUAM were captured. Some of these were translated and printed, and sent by air to Commander Task Force FIFTY-THREE while others were sent as they were, time not permitting the delay necessary for translation and printing. Commander Task Force FIFTY-THREE being embarked on an AGC, the same facilities were available that were available to this command. Hence, the only printing of photographs, etc. that was done by this command on GUAM was to deliver the latest intelligence material to those ships departint the SAIPAN area directly for GUAM.

(d) Other Intelligence Personnel in Subordinate Commands

In accordance with ComInCh secret serial 00578 of 21 February, 1944, a study was made of a plan suggested by Commander Naval Activities, North African Waters, in his serial 0860 of 10 December, 1943, which provided for increased intelligence activities and organization under the control of Amphibious Forces afloat. This plan was titled "Navy Combat Intelligence in Amphibious Operations". As a result of this study a plan was submitted to the Commander in Chief, U. S. Pacific Fleet, which provided for increased intelligence personnel and activities in Amphibious Operations and which outlined the duties of Transport Intelligence Officers, Transport Scout Intelligence Officers, Linguist Officers on Amphibious Staffs, and J.I.C.P.O.A. Intelligence teams. Certain provisions of this plan were incorporated in Commander in Chief, U. S. Pacific Fleet, secret serial 000297 of 2 May, 1944, and forwarded to the Commander in Chief, U. S. Fleet with the recommendation that the additional personnel be provided prior to future operations.

A copy of secret serial 000297 is appended. This reference is being used as a basis for expansion of intelligence facilities and as a directive governing the duties of each new activity.

The provisions of this reference are being placed into effect as suitable personnel becomes available. Considerable progress has been made and it is expected that the enlarged organization will be in full operation in the near future.

(e) Recommendations for Future Operations

(1) It is recommended that the present system of having the Force Intelligence Officer coordinate all requests for maps, charts, etc. that are to be constructed and printed by JICPOA be maintained.

(2) Recommend that the distribution of all basic intelligence material such as charts, maps, and air target maps (small) be made directly to all ships and units of the Joint Expeditionary Force by the Force Intelligence Officer. The amounts to be distributed to the various ships and units to be by agreement with the Group Intelligence Officers. The distribution of other material on individual objectives to be made by the Groups themselves.

ANNEXES

1. FIFTH Amphibious Force Circular Letter AL23-44 (Secret Serial 00454 of 12 April 1944) - Intelligence Doctrine.

2. Special Air and Gunnery Target Map of SAIPAN, Sheet 5 of 5 Sheets; Scale 1:20,000 (1 sheet only).

3. CinCPac Secret Serial 000297 of 2 May 1944 - Navy Combat Intelligence in Amphibious Operations.

4. Aerological Conditions.

C5A/A8

Serial 00454

OFFICE OF THE COMMANDER
FIFTH AMPHIBIOUS FORCE, PACIFIC FLEET
SAN FRANCISCO, CALIFORNIA

25-mn

[redacted]

12 April 1944.

FIFTH AMPHIBIOUS FORCE CIRCULAR LETTER AL23-44

From: Commander FIFTH Amphibious Force, U. S. Pacific Fleet.
To: FIFTH Amphibious Force.

Subject: Intelligence Doctrine.

1. In order to coordinate and standardize intelligence activities during operations, the following procedure will be followed by all units of this command unless otherwise directed.

2. Reports:

(a) Commander Joint Expeditionary Force will make daily periodic reports during the Amphibious Phase of an operation as of 2200. Principal subordinate commanders will make reports to arrive at the Force Flagship not later than 2000 to form the basis of the reports of the Force Commander.

(b) Force Intelligence estimates and reports will be distributed to all subordinate units and ships as the situation may require.

3. Prisoners of War

(a) Task Force Commanders will, prior to departure from bases to the objectives, designate the Attack Transports (APA)'s that are to be used for Prisoner of War Ships.

(b) It is not desired to use Attack Cargo Ships (AKA)'s for Prisoner of War Ships.

(c) APA's used as Prisoner of War Ships will not be used to receive casualties.

(d) Task Force Commanders will inform Commanding Officers of Landing Forces the ships designated as P.O.W. ships.

(e) During the Amphibious Phase, Prisoners of War will be delivered to P.O.W. Ships under guards furnished by the Landing Force. These guard details will include at least one enlisted Japanese interpreter.

Annex 1 to Enclosure (B)

C5A/A8

Serial 00454

OFFICE OF THE COMMANDER
FIFTH AMPHIBIOUS FORCE, PACIFIC FLEET
SAN FRANCISCO, CALIFORNIA

[redacted]

12 April 1944

Subject: Intelligence Doctrine.

(f) Commanding General Expeditionary Troops will designate Japanese Language Officers who will be assigned to Prisoner of War Ships for the return voyage. These officers will embark aboard P.O.W. ships just prior to departure to rear areas.

(g) The duties of these officers will be to facilitate:

(1) Organizing and controlling P.O.W.'s aboard ship.
(2) Interpreting for doctors, billeting officers, and mess officers.
(3) Processing P.O.W.'s enroute to rear areas.

(h) Troops designated as P.O.W. guards aboard P.O.W. ships will remain aboard these ships until relieved by Task Force Commanders.

(i) Officers, non-commissioned officers, other ranks, and civilian prisoners of war, will be kept segregated.

(j) Prior to the arrival of P.O.W. ships' in a rear area Commanding Officers of these ships will, as soon as practicable with consideration for the requirements of radio silence, furnish the Commandant of the Naval District with the following information:

(1) Number of officer prisoners, Japanese.
(2) Number of enlisted prisoners, Japanese.
(3) Number of stretcher case prisoners.
(4) Number of civilian prisoners.
(5) Number of Korean prisoners.

(k) Commanding Officers of P.O.W. ships will ensure that humane treatment is accorded all P.O.W.'s as laid down in U.S. War Department Field Manual 27-10 (Rules of Land Warfare).

(l) On shore, Prisoners of War will be handled as directed by Commanding General, Expeditionary Troops.

C5A/A8

Serial 00454

OFFICE OF THE COMMANDER
FIFTH AMPHIBIOUS FORCE, PACIFIC FLEET
SAN FRANCISCO, CALIFORNIA

[redacted]

12 April 1944

Subject: Intelligence Doctrine.

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4. Captured Documents and Material:

(a) All captured documents and material of whatever nature are the property of the U. S. Government and will not be put to personal use.

(b) If, by any reason of naval or military necessity during the amphibious phase, it becomes necessary for any unit or ship to use, destroy, or distribute captured documents or material, the circumstances will be reported to Commander FIFTH Amphibious Force.

(c) On shore, captured documents and material will be handled as directed by the Commanding General Expeditionary Troops.

(d) Intelligence Teams from JICPOA will report to the Commander FIFTH Amphibious Force, Pacific Fleet for further assignment to Landing Forces through the Expeditionary Troop Commander.

(e) It will be the duty of the Intelligence Teams from JICPOA to accept custody of and assist in the evaluation of documents and material. They will make detailed field studies of enemy installations and equipment including ordnance and aircraft material.

(f) It will also be the duties of the Intelligence Teams to handle intelligence material and to insure that such designated material is dispatched to the Joint Intelligence Center, Pacific Ocean Area.

(g) Officers of the FIFTH Amphibious Force, afloat, will take steps to insure that all documents and material pertaining to the enemy are turned in to the Intelligence Section, FIFTH Amphibious Force. On shore, all documents and material pertaining to the enemy will be turned in to nearest Intelligence Section of the Landing Force.

C5A/A8

OFFICE OF THE COMMANDER
FIFTH AMPHIBIOUS FORCE, PACIFIC FLEET
SAN FRANCISCO, CALIFORNIA

Serial 00454

[redacted]

12 April 1944.

Subject: Intelligence Doctrine.

(h) Captured documents or information of immediate value dealing with Naval functions will immediately be forwarded to the Commander of the Naval Task Force through channels by the most expeditious means.

(i) Intelligence Officers will examine captured material when turned in by an individual and if the article is of no military value, will stamp same "Examined in the field and passed by Joint Intelligence", then return article to the finder if desired by him as a souvenir.

(j) The Commanding Officers of ships will cause an inspection to be made of individuals returning aboard ships from Combat Areas, for enemy documents and material. The Commanding Officers of Organized Units returning aboard ship from a Combat Area will inspect their units for enemy documents and material. Those articles not bearing an official souvenir stamp will be immediately confiscated and turned over to the appropriate Intelligence Section. Offenders will be subjected to disciplinary action by appropriate authority.

(k) Full use of serviceable captured material and equipment will be made by assault and garrison forces and by Naval Units.

5. COUNTER INTELLIGENCE

(a) Natural cover will be utilized to the maximum in concealing small craft, boats, personnel and supplies. Ships and boats will be dispersed except when actually engaged in loading and unloading operations.

(b) Personnel captured are required by the rules of Land Warfare to give only their Name, Rank or Rating and Serial or File Number and will divulge no other information to the enemy.

(c) Personal diaries will not be kept.

(d) Personnel with specific knowledge of future operations will not be assigned missions involving appreciable risk of capture.

(e) Personnel landed will not carry personal letters or other compromising material with them. Insignia of rank will be carried but should not be visible. All personnel landed including correspondents should be dressed in conformity to the clothing worn by troops ashore. This applies to officers going ashore on inspection tours. The use of distinctive articles of uniform and equipment will be avoided. No diaries will be taken ashore or kept on shore.

6. Public Relations

(a) War correspondents and photographers will be assigned to the FIFTH Amphibious Force, Pacific Fleet for all operations, by the Commander in Chief, Pacific Fleet, to insure full and proper coverage.

(b) War correspondents assigned for an operation which involves landing of troops, will report to the Commanding General, Expeditionary Troops, for further assignment. When ashore correspondents will be under the control of the landing force officer to whom assigned.

(c) All Force, Group, and Unit Commanders will provide accredited representatives of the press, Naval and Military forces assigned to coverage of the Pacific Campaign, all practicable cooperation, including information and physical facilities consistent with security and operations.

(d) A representative of the Pacific Fleet Public Relations Office will arrange for all interviews with personnel returning from a combat area, desired by Press Correspondents.

(e) Commanding Officers of all Ships and Troop Units will comply with Pacific Fleet Letter 7L-44.

C5A/A8

Serial 00454

OFFICE OF THE COMMANDER
FIFTH AMPHIBIOUS FORCE, PACIFIC FLEET
SAN FRANCISCO, CALIFORNIA

[redacted]

12 April 1944

Subject: Intelligence Doctrine.

(f) Copy forwarded by War Correspondents will not be censored by field commanders but will be transmitted for censorship to Commander in Chief, Pacific Fleet or his field representative.

(g) It is expected that Public Relations Officers from the Staff of the Commander in Chief, Pacific Fleet will be assigned as the field representative of Commander in Chief, Pacific Fleet, to the Commander FIFTH Amphibious Force, Pacific Fleet for operations. These officers will coordinate press activities, censor and arrange for the transmission of material to be released and arrange for the transportation to Commander in Chief, Pacific Fleet, of material to be censored and released at PEARL.

(h) All personnel of the FIFTH Amphibious Force (Army, Navy, and Marine) during Amphibious Operations will not disclose in their personal correspondence estimates of enemy forces, numbers of prisoners captured or any information pretaining to prisoners captured.

/s/ R. K. TURNER

Annex 1 to Enclosure (B)

~~CONFIDENTIAL~~ DECLASSIFIED

SAIPAN – TINIAN AREA

SHEET 5 OF 5 SHEETS

SPECIAL MAP

[redacted] THIS CLASSIFICATION WILL [redacted] CONDUCTED IN COMBAT AREA

SPECIAL AIR & GUNNERY TARGET MAP
Sheet 5 of 5 sheets Scale: 1/20,000

Approved:
R. K. Turner, Vice Admiral USN
Commander 5th Amphibious Force

INSTRUCTIONS

Blue Purple Salmon

The Special Grid System is superimposed on this map in purple color. This System is to be used for pin point designations.

The arbitrary target square system is superimposed on this map in salmon color with blue letters and numbers. This system is to be used for area designations.
The numbering of the 1000 - yard target areas and lettering of the 200 - yard target squares has no relation to the numbering used in the grid system.

EXAMPLES FOLLOW:

Pin point designation of Cape Obiam, HN 053-129
Pin point designation of RJ 201, HN062-137

Cape Obiam is in target square 103B
RJ 201 is in target square 111G

DEFENSE SYMBOL KEY

- COASTAL DEFENSE GUN
- DUAL MOUNT DUAL PURPOSE GUN
- DUAL PURPOSE GUN POSITION (Empty)
- SINGLE MOUNT HEAVY AA
- AUTOMATIC AA
- COVERED ARTILLERY EMPLACEMENT
- RANGE FINDER
- UNIDENTIFIED INSTALLATION
- MACHINE GUN
- BLOCKHOUSE
- PILLBOX
- RADAR
- SEARCHLIGHT
- COMMAND POST
- OBSERVATION TOWER

HN

ANNEX
APPENDIX 2 TO INTELLIGENCE
REPORT OF FORAGER OPERATION

MAGICIENNE BAY (LAULAU BAY)

ASLITO AIRFIELD

ASHONNO

AGINGAN PT.

YELLOW 3 BEACH

YELLOW 4 BEACH

WHITE 1 BEACH

WHITE 2 BEACH

AGINGAN

CAPE OBIAM

NAFUTAN PT.

MT. NAFUTAN 407

SAIPAN CHANNEL

SUBMARINE CABLE
PLOTTED FROM ADVANCE COPY H.O. CHART NO. 1206

APPROX. VARIATION 2°06'E (1944)
ANNUAL MAGNETIC CHANGE
3° INCREASE

THIS AREA FROM OBLIQUE PHOTOGRAPHY

07' 30" 15° 07' 00" 06' 30" 15° 06' 00" 05' 30" 15° 05' 00" 04' 30"

145° 41' 00" 41' 30" 145° 42' 00" 42' 30" 145° 43' 00" 43' 30" 145° 44' 00" 44' 30" 145° 45' 00" 45' 30" 145° 46' 00"

SCALE 1:20000
1000 500 0 1000 2000 3000 YDS.

POLYCONIC PROJECTION WITH 1000 YD SPECIAL GRID

Note: Contours by the 29th Engr. top. Bn., April 1944, utilizing multiplex aero-projectors from single lens aerial photographs, adjusted to base map by 64th Engr. Top. Bn. USAFICPA.

PREPARED FOR JOINT INTELLIGENCE CENTER P.O.A. BY 64TH ENGR. TOP BN. USAFICPA [redacted] PHOTOGRAPHY FROM NAVY SORTIE [redacted] LOGICAL CONTOURS AND HYDROGR[redacted] COPY H.O. CHART NO. 1206) AND [redacted] DEFENSIVE INSTALLATIONS FROM PH[redacted] REPORT NO. 387, APRIL 18, 1944
64TH ENGR. TOP BN. USAFICPA NO. 194-5

[redacted] BEEN COMPILED FROM AERIAL PHOTOGRAPHS WITHOUT ADVANTAGE OF [redacted] OR RECONNAISSANCE; THEREFORE AZIMUTH AND SCALE ARE NOT [redacted] DETERMINED. THEY ARE REPRESENTED AS ACCURATELY AS POSSIBLE FROM AVAILABLE SOURCES OF INFORMATION. CORRECTIONS AND OTHER COMMENTS SHOULD BE FORWARDED TO JOINT INTELLIGENCE CENTER, PACIFIC OCEAN AREAS, P.H.

LITHO BY MAP REPRO
USS ROCKY MOUNT AUG 1944

UNITED STATES PACIFIC FLEET
AND PACIFIC OCEAN AREAS
HEADQUARTERS OF THE COMMANDER IN CHIEF

[redacted] DECLASSIFIED 2 May 1944.

A8

Serial: 000297

From: Commander-in-Chief, U. S. Pacific Fleet.
To: Commander-in-Chief, U. S. Fleet.

Subject: Navy Combat Intelligence in Amphibious Operations.

Reference: (a) ComInCh Secret Ltr. Serial 00[redacted]78 of 21 February, 1944.
(b) ComNavNAV Secret Ltr. Serial 0860 of 10 December, 1943, and enclosure (A) thereto.

1. Reference (a) invites comment upon a proposed plan for a Task Force intelligence organization during execution of amphibious operations which was set forth in reference (b).

2. It is considered that the plan proposed provides an excellent standard organization which can be readily modified to fit any type of amphibious operation and may eventually become basic doctrine.

3. The plan is of particular interest to CinCPac at this time. Future operations in the Central Pacific will be increasingly complex due to larger land areas, more extensive enemy installations and larger native populations. As a result, naval intelligence organizations will necessarily be increased.

4. In the past amphibious operations in the Central Pacific Area, the following precepts have been followed:

(a) The Naval Command is responsible for all operations afloat and for landing the landing force.

(b) The Landing Force Commander is directly responsible for, and in command of, all operations ashore, including the Beach Party while that unit is functioning with the Shore Party.

(c) The Landing Force Commander submits a request to the Naval Command echelon for such information as agencies available to the Navy can obtain and which will be useful to the landing force on shore. When it is necessary for landing force intelligence personnel to implement naval echelons in the procure-

Annex 3 to Enclosure (B)

ment and handling of the information requested, this personnel is assigned to work in a joint capacity.

(d) Conversely, the Naval Command requests as much information as agencies available to the Landing Force Commander can obtain and which will be useful to the Naval Command afloat. When it is necessary to implement ground echelons in the procurement and handling of the information requested, this personnel is assigned to work in a joint capacity.

(e) Hydrographic information of proposed landing beaches has been obtained by a joint team consisting of Navy and Army or Marine personnel from the Transdiv that is actually to make the landing. This arrangement has worked satisfactorily in this area and results have been obtained from this type of reconnaissance.

5. These precepts have proven basically sound. Evidence of this is past successful amphibious operations in the Central Pacific Area. It is strongly recommended that development of further coordination and delineation of responsibility between existing agencies be stressed rather than new ones created.

6. The building of transport and beach intelligence units is definitely indicated. It is questionable if it is necessary to parallel existing military intelligence units to the extent proposed.

7. To complement existing amphibious policy, the following increase in intelligence personnel is suggested:

(a) One Intelligence Officer on the Staff of each Transport Division Commander.

(1) Acts as Intelligence Officer for the Transport Division Commander and remains afloat during operations.

(2) Has general charge of all intelligence activities of the transport division including control and supervision of beach reconnaissance units.

(3) Insures proper distribution with the Transport Division of intelligence material received prior to and during an operation.

(4) Insures that provisions are made for briefing of boat officers coxswains and boat crews of land craft divisions.

(5) Receives and evaluates for ready use of the Transport Division Commander, intelligence received from all sources and maintains a situation map or chart on the objective and adjacent areas.

(6) Assigns Scout Officer, with the approval of the Landing Force Commander, or his representative, for specific duties ashore, but under the control of, or coordinated with the approval of the landing Force Commander.

(7) To effect intelligence liaison between the ground units landed and the Transport Division Commander, keeping the latter informed of conditions ashore.

(b) One Scout Officer for each Transport.

(1) Preliminary reconnaissance of areas of operations in advance of target data as directed by the Task Force Commander. This reconnaissance to be carried out in conjunction with designated troop units.

(2) Distribution of Intelligence material while afloat.

(3) Briefing of Boat Officers, Coxswains and boat crews of landing craft.

(4) Close beach reconnaissance just prior to attack and during bombardment phase as directed by Task Force Commander.

(5) Piloting of early landing waves.

(6) Marking of beaches for night landings.

(7) Assistance to Battalion and Regimental Beachmaster in all intelligence activities ashore, including:

(a) Maintenance of close liaison with landing force intelligence units with particular reference to location of enemy documents of naval interest and prisoners have information of naval interest.

(b) Raids on enemy naval installations for materiel of intelligence interest.

(c) Transmission of all information and materiel of immediate interest to appropriate Naval Force Commanders.

(d) Naval security duties on the beaches.

(e) Maintenance of situation maps or charts concerning beaches and adjacent areas.

(c) Two Intelligence Officers with the necessary linguistic qualifications on the staff of the Task Force Commander and each Group Commander.

(1) Handle captured documents and materiel and prisoner of war and native interrogations for Task Force Commanders. This to be done under the supervision of the Landing Force Commander or his intelligence personnel.

(2) Receive materiel obtained in raids on naval establishments.

(3) Transmit information of immediate naval interest to appropriate commanders.

(d) Intelligence teams should be temporarily attached to the staff of each Amphibious Task Force Commander during each operation. They should be further assigned by the Task Force Commanders to the Commanding General Expeditionary Troops, who will assign them to definite troop units. While with these units, the teams will be under the direct control of the unit intelligence officer. Intelligence Teams will be primarily concerned with:

(1) To survey enemy installations and materiel ashore for information of long range interest.

(2) To bring promptly to the attention of appropriate commanders any information of immediate value.

(3) To assist the landing force intelligence officers in examining and passing on souvenirs in the possession of military and naval personnel

8. In considering all phases of the increase in intelligence personnel noted in paragraph 7, above, all intelligence activities ashore during an amphibious operation should be under the Control of the Landing Force Commander, and Naval Intelligence personnel ashore would be included in this. It would appear desirable to place the Scout Officers attached to a Transport Division under the control of the Division Beachmaster who, in turn, operates at the direction of the Landing Force Commander through the Shore Party Commander. Such intelligence officers should maintain very close liaison with Landing Force Intelligence Officers.

9. It is believed there are sufficient suitable qualified officers available for assignment as Transport Division Intelligence officers. Graduates of the advanced Intelligence School conducted by the Office of Naval Intelligence and further trained at Amphibious Training Bases are considered to be good material for such duties. If practicable, they should be further trained by Amphibious Forces afloat before assignment.

A8

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Subject: Navy Combat Intelligence in Amphibious Operations.

10. It is considered unlikely that enough Scout and Raider School graduates are available for all transports. More should be trained. Those now available should be ordered to Transport Division Flagships before supplying other transports. All transports not having an intelligence officer regularly assigned should detail a ships' officer regularly to perform intelligence duties afloat, including the distribution of intelligence material and briefing of personnel.

11. Considering the character and extent to be expected from future operations in the Central Pacific, it is recognized that increases in intelligence personnel as noted herein are desirable and should be provided prior to future operations.

12. It is recommended that the formation of special transport and beach intelligence units, as such, be considered only in cases where these units will not parallel the functions of existing military intelligence units.

/s/ C. H. McMORRIS,
Chief of Staff.

NOTE: CinCPac Serial 000297 of 2 May, 1944, originally was TOP SECRET - Reduced to SECRET Classification by CominCh Serial 002072 of 19 July, 1944.

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ANNEX (4) to ENCLOSURE (B)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

AEROLOGICAL CONDITIONS
SAIPAN - TINIAN

I. GENERAL WEATHER:

Weather conditions were for the most part favorable for amphibious operations. Two distinct weather periods were encountered; the last of the dry season, extending from the beginning of the operations until July 2; and the first part of the rainy season, from July 3rd until its completion. Both periods were subject to occasional spells of unfavorable weather, which fortunately did not occur at a time which seriously affected assault operations. Winds were gentle to moderate except in the few poor weather spells, and partly cloudy sky conditions prevailed. Sea conditions were favorable for the most part, except for occasional swells from the West, which increased the difficulty of the assault on SAIPAN slightly; the difficulty of unloading considerably; and damaged some small craft and LST's.

II. RAINFALL:

In the dry period showers occured on the average of 40 minutes per day, but only five days out of sixteen (31%) had over one-half hour of rain. In the wet period, it rained on the average 96 minutes per day, with more than half an hour per day 57% of the time. Operationally, the rainfall was not a serious handicap; in the SAIPAN operations, the dry period was more difficult for the troops because of the large amount of dust, which persisted until four days of fairly heavy rain from July 21 to 25 settled it. The heavier rain in the wet season at times reduced the effectiveness of both air and gunfire support, due to unfavorable flying conditions and poor visibility. The relatively short duration of showers, (only 22% of rainy season days had over 3 hours of rain) kept this disadvantage to a level of low importance.

III. WINDS:

In June, surface winds averaged 13 knots from ENE; in July, 8 knots from E; and in August 13 knots from ENE. These values were somewhat higher than expected from climatic records, but did not affect operations adversely. On one occasion, with development of a typhoon in the Southern MARIANAS on July 31, and August 1, it was considered necessary to broad-

cast a warning of high winds. On this occasion, gusts reached 38 knots, with a maximum hourly velocity of 24 knots, from SSW. Storm warnings were also put out in GUAM August 13 with indications of a disturbance forming. Winds exceeded 20 knots for only a short period in local squalls. In neither case were operations seriously interferred with by the winds, although the accompanying seas and swells hampered unloading.

IV. SEA AND SWELL:

Sea conditions were generally calm to slight, except in the case mentioned in section III when winds exceeded 20 knots. Swell was considerably more of a problem, and in general, accurate forecasts of swell conditions could not be made. On June 15, a slight westerly swell was noted, which increased the following day, gradually veered to a northerly direction and died out on the 17th. The resultant surf on the reef was responsible for the loss of several landing craft and some personnel casualties, and increased the difficulty of unloading. It is believed that a typhoon to the westward which had not previously been located on the weather map was responsible for this swell.

On July 20, indications on the synoptic chart of a disturbance near YAP, and local southerly winds and swell, caused some concern over the possibility of unfavorable swell conditions for the GUAM assault. Fortunately, conditions remained good for the assault phase.

On July 30, as a result of disturbance forming near GUAM, and developing rapidly to the west of SAIPAN, heavy swells from westerly directions built up, lasting through August 4, the swell swinging to southerly in the latter part of the period. This period gave the greatest weather hazard of the operations. Unloading operations at TINIAN became very difficult, and it was necessary to use plane transport for ammunition, food, and evacuation of casualties between SAIPAN and TINIAN; fueling alongside, and unloading by ships in SAIPAN anchorage became next to impossible; and several craft were driven on the beach and reef, including one LST on TINIAN which was damaged beyond economical repair, although it was salvaged and brought into TANAPAG HARBOR later.

V. TYPHOONS:

UNCLASSIFIED

No fully developed typhoons passed over or approached dangerously close to the MARIANAS during the operations. One

incipient typhoon developing rapidly within 200 miles of SAIPAN resulted in the high winds and swells about August 1 already discussed. The following storms were located with reasonable definiteness:

(1) June 20 - A disturbance 1000 miles NW of SAIPAN which may have been either a typhoon or a wave cyclone on an extra-tropical front.

(2) July 16 - A disturbance was noted about 200 miles south of GUAM which developed into a typhoon, but moved westward and did not affect weather in the MARIANAS.

(3) July 21 - A stationary low near YAP was noted, which is believed to have later developed into a typhoon, although available data is insufficient to verify this. A typhoon was noted later (July 29) to the WNW, which may have been this storm.

(4) July 30 - An incipient typhoon formed near GUAM, and developed into a severe storm about 200 miles west of SAIPAN, with resultant swell and wind conditions previously discussed.

(5) Aug. 4 - A wave on the equatorial front 500 miles west of the MARIANAS appeared to develop into a typhoon, being reported as such in LUZON STRAIT August 13.

All the typhoons noted moved in a WNW direction at a speed of about 10 knots. Exact location and structure was generally difficult to determine, even when plane reports were available near the disturbance. However, an accurate enough determination could be made of the effect on the local weather, except in case of the swell which came from a typhoon to the West on June 15; failure in this case is directly due to the fact that there were no weather reports received within several hundred miles of the position of the typhoon.

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
25 August 1944.

ENCLOSURE (C)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

OPERATION OF CONTROL, BEACH, AND SHORE PARTIES

I. OPERATION OF CONTROL PARTIES

A. SAIPAN LANDING (See Annex (1) SAIPAN Landing Organization)

1. Operations in the MARIANAS have again shown the need for permanent control organizations, especially trained to handle assault landings and the problems of supply and reenforcement during the assault phase. In a large scale landing on an extended land mass to which access is limited by natural or artificial barriers, adequate and continuing close-in control of the landing of troops and supplies is necessary. This applies especially to landings in areas where essential details of military and hydrographic information are unknown or incomplete.

2. For the SAIPAN operation, the deficiency in personnel was met by assigning officers experienced in landing operations from the staff of the Commander Expeditionary Forces, and from Transport Group and Division staffs. CTF 51 Chief of Staff, Commodore THEISS was made Chief Control Officer. For the close-in control of the assault landing, 3 PCS, 4 PC, and 9 LCC were used. Additional control vessels were used for several days as follows;

1 PCS - - - Commanding General, Northern Troops & Landing Force.

2 SC - - - Commanding Generals, SECOND & FOURTH Marine Divisions.

1 SC - - - Force Beachmaster and Shore Party Commander.

2 PCS - - - Commanders, LST Flotillas THREE & THIRTEEN.

3. An additional SC and 2 LCC's were stationed off the channel at CHARAN-KANOA to control traffic to BLUE ONE and through the lagoon to RED and GREEN beaches as soon as enemy fire permitted use of the channel. The use of PCS's for LST Flotilla Commanders resulted in greatly increased surety of LST operation. The number of control craft made available for the assault and unloading was adequate; however, there should be no reduction in this number for a similar operation. One SC and 2 LCC's were used by the Demonstration Group in the simulated landing north of TANAPAG. The LCC's reported to Channel Control and the SC to the screen after the demonstration. All other control craft were used during the assault and through D/2;

thereafter, control craft, as released, were assigned to screening duties.

4. Efficient control is largely a question of experience and communications. For the MARIANAS campaign, a total of 24 control communication teams were trained and assigned, 14 to SAIPAN-TINIAN, 10 to GUAM. Each team consisted of a communication officer, four radiomen, and two signalmen. SCR 608, 610, and 808 equipments were provided control vessels in addition to installed equipment; Beachmasters were provided with SCR 610 and 536; the communication plan was designed to provide adequate channels for all groups. Throughout the operation, communication between vessels of the control group was excellent; as a result, demands were promptly met. To provide for overlapping operations, interim training of new teams and replacements, it will be necessary to train additional teams.

5. Troop officers of the THIRD and FOURTH Sections from Corps, Division, and Regimental headquarters were embarked in Central Control Transport Group Control and Transport Division Control vessels respectively. Transport Group and Division Beachmasters, with their opposite numbers in the Shore Party, were likewise embarked. The Force Beachmaster and the Corps Shore Party Commander were embarked in a free SC. Officers from the LVT Battalions were in the Transport Division Control vessels at the Line of Departure and assisted in exercising control over LVT waves. Troops provided communication equipment and personnel for communication over troop circuits with LVTs and assault elements. Throughout the operation troop officers furnished advice as to WHAT, WHERE and WHEN; it was up to the Control Organization to provide the ways and means. Officers of the THIRD Section, Beachmasters, and Shore Party Commanders and those attached to combat units were landed as soon as the situation permitted. Officers of the FOURTH Section remained to assist during the acute stages of unloading.

6. In the landing on SAIPAN, the assault front covered 6000 yards, with assault troops landing in LVTs. Reserve troops debarked from the transports in landing boats, transferred to LVTs in the transfer area about 1500 yards off each beach, and tanks, artillery, equipment and supplies were moved across the reef and the lagoon, or through CHARAN-KANOA Channel, when opened to traffic, as might be found most feasible.

7. To meet the landing plan of the troops, a control organization was set up headed by a Force Control Officer who was responsible for the entire Corps landing. Next in the echelons of control were two Group Control Officers, each responsible for the landing of a division. Under each of the latter were two Transport Division Control Officers in charge of the landing of a regiment and exercising control over two contiguous battalion landing lanes.

8. The Force and Group Control Officers were embarked in PCSs which were free vessels that generally maintained a position to seaward of, but near the center of the Line of Departure of their respective sectors of responsibility. The Transport Division Officers, controlling the regimental landings, were embarked in PC's which were required to maintain a fixed position (anchored) in the center of the regimental Line of Departure. The leading waves were called to the Line of Departure and despatched by the Force Control Officer, using flag hoists, paralleled by voice radio. The timed waves following were despatched by the Transport Division Control Vessels in accordance with the Division Landing Plan. After all scheduled waves had been despatched, each Transport Division Control Officer was free to call up reserve waves and despatch them upon advice from the Regimental Commander or his representative without reference to a Control Officer in a higher echelon.

9. Each of the scheduled assault waves of the regiments was provided with flank guide officers embarked in LCV(P)s, and the first wave of each regiment was guided from the Line of Departure by an LCC on each flank. These craft, by the use of their radars and observations of time, were able to check their positions at 500 yard intervals and, by slightly increasing or decreasing speed, maintain a fairly uniform and predetermined rate of advance to the beach. LVT's of the assault waves were released from control afloat at the barrier reef. Boat Group Commanders from the APA's carrying the assault BLT's were embarked in these LCC's which, after serving as lead-in guides for the first wave, took station to seaward of the reef off their respective battalion landing beaches, from which positions they supervised the transfer of troops and supplies from LCV(P)'s to LVT's, or the reverse transfer of casualties coming off the beach. These Boat Group Commanders embarked in the LCC's, provided an inshore or secondary traffic control for each battalion landing beach and operated under the Transport Division Control Officer located in the fixed PC at the Line of Departure.

10. An SC and 2 LCCs were stationed off the entrance to CHARAN-KANOA Channel as soon as BLUE Beaches and SUSUPE POINT were secured. Traffic to RED and GREEN Beaches (SECOND Marine Division) which had initial priority, and to BLUE ONE (FOURTH Marine Division) was controlled from this station. LCV(P)s and LCMs were able to reach beaches to the northward through the lagoon with the exception of a period of about two hours before and after low water, and direct approach was available to BLUE ONE at most stages of the tide. At the same time, LVTs and DUKWs unloaded directly over the reef to all color beaches, and on YELLOW beaches, vehicles and drummed petroleum products were unloaded direct from LSTs and LCTs over the reef as tidal conditions permitted. After pontoon causeways were placed on BLUE ONE, LCTs were able to unload all types of supplies and equipment. In all these unloading activities, the Control Organization

cooperated with Beach and Shore Parties to secure maximum unloading rates and to take full advantage of every possible means of landing cargo. Immediate action was taken to meet each requirement of the troops as it became known, and, in so far as was possible, steps were taken to anticipate their needs.

11. The control set-up was designed to conform to the organization and landing plan of the troops. Each control group had a counterpart in the troop organization and officers with corresponding responsibilities worked together to provide coordinated action in the exercise of the ship-to-shore control function. It likewise parallels the Beach Party and Shore Party Organizations and is adaptable in whole or in part to meet any condition of landing from a battalion to a corps. The troops were satisfied with the results obtained. It is intended that this method be standard. It will be incorporated in the next revision of "Transport Doctrine."

B. TINIAN LANDING

12. While two divisions landed on TINIAN ISLAND, the landing plan was substantially different from that of SAIPAN, although the general principles of control remained the same. There, only two very restricted beaches were available, and landings were made on a narrow front in each case. Although these beaches were not adjacent to each other, but were separated by a distance of approximately one thousand yards, the overall distances were such that a Force Control Vessel was able to direct the dispatching of the initial waves while a separate control vessel, acting under the supervision of Central Control, regulated the traffic for each of the two separate beaches. LCCs acted as flank guides for the first waves and served thereafter as inshore or secondary control craft off their respective beaches. Troop officers aboard the control vessels assisted the control officers as in the SAIPAN landing. Control during the TINIAN operation was effective and satisfactory, and demonstrated again the soundness of the principles of control now being followed in the Central Pacific operations.

C. GUAM LANDINGS

13. The landings at GUAM were on beaches so separated that the exercise of a central control was impracticable. For all practical purposes, there were two independent landings, although coordination by the Task Force Commander.

14. For planning purposes, both assaults were scheduled for the same hour, but as operations would be almost wholly independent of each other, for an extended period, a minor change in the landing hour of one group did not call for a similar change by the other. Therefore, two separate control organizations were set up, each of which

followed the general principle of stationary vessels at the Line of Departure supervising the assembly and dispatching of waves, the use of LCCs to guide leading waves from the Line of Departure and to act as close inshore control craft following the landing, and a Central Control vessel exercising a coordinating direction over the entire landing maneuver.

15. In general, the same principles for the control of landings and the supply of troops that worked so successfully at SAIPAN were used with success in this phase of the operation.

II. OPERATION OF BEACH AND SHORE PARTIES

16. The standard Beachmaster Organization was used. A Forde Beachmaster was in charge of all beaches, not only those on which the initial landings were made, but such additional beaches as might be opened. Transport Group ABLE Beachmaster had charge of the SECOND Marine Division beaches, RED and GREEN, and Group BAKER Beachmaster controlled FOURTH Marine Division beaches, BLUE and YELLOW. Transport Division Beachmasters were assigned the beaches on which the regimental combat team from that division was to land and Transport Beachmasters were initially assigned to beaches on which the battalio from that transport landed in assault.

17. The initial set up provided for an 8-4-2-1 division of responsibility in the Beachmaster Organization under the Force Beachmaster through the individual transport beach parties. The Shore Party Organization corresponded. During the assault the Force Beachmaster and the Shore Party Commander were embarked in a free SC and were able to observe beach conditions along the entire landing front of 6000 yards. Transport Group Beachmasters and their opposite numbers in the Shore Party were assigned to Transport Group control vessels and Transport Division Beachmasters and corresponding Shore Party officers were stationed in the fixed control vessels off the color beaches on which they were to operate. This permitted close observation of conditions prior to and during landings on the beaches for which the respective beachmasters were responsible.

18. Nucleus Transport Beach Parties, consisting of communication and hydrographic units, were landed with the last assault wave on each battalion beach in order to establish early shore-to-ship communications, and to report on landing conditions at the beaches. Nucleus Battalion Shore Parties landed at the same time. This is essential service and information and must be made available promptly to control afloat in order to guide the subsequent landing of reenforcements and urgent supplies. Save for those cases where communication equipment was lost or damaged beyond repair as a result of enemy action, communications, both voice and light, were promptly established and maintained.

19. The balance of those Transport Beach and Battalion Shore Parties, including medical sections initially assigned to assault beaches, were boated and despatched to the fixed control vessels stationed off colored beaches. They were sent in to the beaches during the afternoon of D-Day, as conditions permitted.

20. The Force, Transport Group, and Transport Division Beachmasters were landed as soon as satisfactory lateral communications were established and the situation in their areas of responsibility was such that they could exercise effective control. Each of these officers was provided with a communication team of one officer, five radiomen, and five signalmen and the necessary equipment to come up on their assigned channels in the radio net. The Force Beachmaster retained the SC assigned him as a floating CP and used it in making direct contacts on and off the beaches as necessary in coordinating beach activities. At times during the early stages of the operation, it was impossible to move along the beach front from one beach to another.

21. Relief beach parties were provided from the transports carrying reserve troops which permitted beach parties to work on a watch and watch basis. As unloading was on a 24 hour schedule and was handled chiefly by the assault beach parties for a period of over a week this permitted essential rest for both officers and men.

22. Communications were far superior to those in any previous operation. The SCR 610s and 536s furnished to all echelons of the Beachmaster Organization, permitted the early establishment and constant maintenance of communication with control afloat and between the CPs of the various beachmasters scattered along 6000 yards of beach.

23. At every beach the unloading problem presented a diffierent aspect. It was necessary to use every possible hour and every practicable means to expeditie the unloading. A close tie-in between unloading control afloat and the shore was necessary to meet the pressing demands of the troops in combat and at the same time secure maximum unloading rates from the ships present. The Shore Party, Beach Party, and Control Afloat worked in concert to secure these ends.

24. Initially all unloading was by LVTs and DUKWs over the reef. When the boat channel at CHARAN-KANOA was secured, LCMs and LCV(P)s were able to reach RED, GREEN, and BLUE One Beaches, a channel was blasted through the reef at RED Three which would take LCV(P)s and, when the enemy was driven back from commanding positions, LSTs and LCTs were beached on YELLOW Beaches and unloaded vehicles over the reef and through the lagoon at low water and supplies by LVT and DUKW at all stages of the tide. The beach parties supervised these various activities from the reef in, marked channels

and controlled traffic in the lagoon and on the beaches and generally gave a highly satisfactory account of themselves under constant and sometimes heavy harassing fire.

25. Pontoon causeways were placed in position at BLUE One as soon as enemy fire permitted and every effort was made to land cargo handling equipment and vehicles whenever and wherever the opportunity was presented.

26. The medical sections of the beach parties carrried on their work despite enemy fire and the difficulties imposed by the conditions under which they were forced to operate. Their's was a very valuable contribution to the maintenance of morale and the success of the operation.

27. The Underwater Demolition Teams.were employed to supplement the efforts of the Beach Parties in hydrographic work and beach clearance. Their reports provided the first detailed information as to actual conditions which would be encountered on the various beaches. Their assistance in clearing channels and marking obstructions was of material assistance in unloading.

28. Throughout the operation, the closest coordination was maintained between Beach and Shore Parties. The Shore Party Commander for the Northern Troops and Landing Forces and the Force Beachmaster worked together during the planning stages, landed together from the same control vessel which they had used as a common CP afloat, and continued their joint activities on the beaches.

29. Each Marine Division Shore Party Commander was paired off with the corresponding Transport Group Beachmaster; each regiment had its Regimental Shore Party Commander, who in conjunction with the Transport Division Beachmaster, unloaded the cargo from the ships of the Transport Division which carried the regiment, and each Battalion Shore Party Commander had his counterpart in Transport Beachmaster of the ship which transported the battalion. In so far as was possible opposite numbers were embarked in the same ships enroute to the objective. Responsible officers were encouraged to find out more about the other fellows job. An excellent spirit of cooperation was developed which paid dividends.

30. During D and D plus 1 days, very little cargo handling equipment was landed due to the nature of the beaches and the character of the resistance. All unloading was on call. Approximately ten thousand men went in over BLUE One, starting at about 2000 the night of D/1. This practically stopped unloading through CHARAN-KANOA Channel until landing of these troops had been completed. By

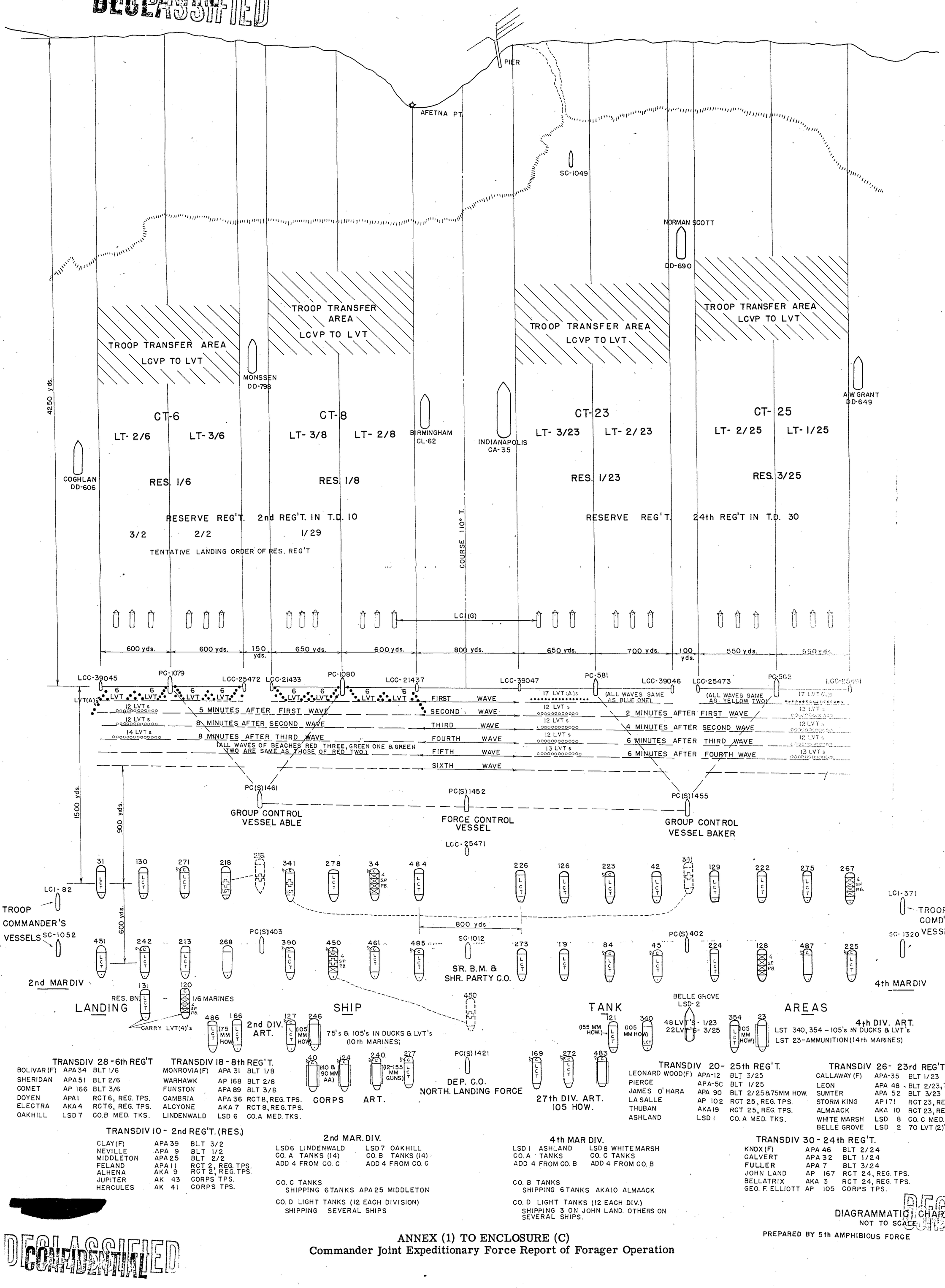
the evening of D+2, general unloading had begun and rates were increased as additional equipment was landed and further facilities provided. The Shore Party used every available means to speed the unloading and turned in an excellent performance. They were handicapped initially by heavy mortar and artillery fire on the beaches and later by the need for transporting supplies long distances to troops at the front, which drew on available personnel and equipment.

Annex

1 - SAIPAN Landing Organization.

RED | GREEN | BLUE | YELLOW

TWO THREE | ONE TWO THREE | ONE TWO | ONE TWO



TRANSDIV 28 - 6th REG'T

BOLIVAR (F)	APA 34	BLT 1/6
SHERIDAN	APA 51	BLT 2/6
COMET	AP 166	BLT 3/6
DOYEN	APA 1	RCT 6, REG. TPS.
ELECTRA	AKA 4	RCT 6, REG. TPS.
OAKHILL	LSD 7	CO. B MED. TKS.

TRANSDIV 18 - 8th REG'T.

MONROVIA (F)	APA 31	BLT 1/8
WARHAWK	AP 168	BLT 2/8
FUNSTON	APA 89	BLT 3/6
CAMBRIA	APA 36	RCT 8, REG. TPS.
ALCYONE	AKA 7	RCT 8, REG. TPS.
LINDENWALD	LSD 6	CO. A MED. TKS.

TRANSDIV 10 - 2nd REG'T. (RES.)

CLAY (F)	APA 39	BLT 3/2
NEVILLE	APA 9	BLT 1/2
MIDDLETON	APA 25	BLT 2/2
FELAND	APA 11	RCT 2, REG. TPS.
ALHENA	AKA 9	RCT 2, REG. TPS.
JUPITER	AK 43	CORPS TPS.
HERCULES	AK 41	CORPS TPS.

2nd MAR. DIV.

LSD 6 LINDENWALD — CO. A TANKS (14) — ADD 4 FROM CO. C
LSD 7 OAKHILL — CO. B TANKS (14) — ADD 4 FROM CO. C

CO. C TANKS
SHIPPING 6 TANKS APA 25 MIDDLETON

CO. D LIGHT TANKS (12 EACH DIVISION)
SHIPPING SEVERAL SHIPS

4th MAR DIV.

LSD 1 ASHLAND — CO. A TANKS — ADD 4 FROM CO. B
LSD 8 WHITEMARSH — CO. C TANKS — ADD 4 FROM CO. B

CO. B TANKS
SHIPPING 6 TANKS AKA 10 ALMAACK

CO. D LIGHT TANKS (12 EACH DIV.)
SHIPPING 3 ON JOHN LAND. OTHERS ON SEVERAL SHIPS.

TRANSDIV 20 - 25th REG'T.

LEONARD WOOD (F)	APA-12	BLT 3/25
PIERCE	APA-50	BLT 1/25
JAMES O'HARA	APA 90	BLT 2/25 & 75MM HOW.
LA SALLE	AP 102	RCT 25, REG. TPS.
THUBAN	AKA 19	RCT 25, REG. TPS.
ASHLAND	LSD 1	CO. A MED. TKS.

TRANSDIV 26 - 23rd REG'T

CALLAWAY (F)	APA-35	BLT 1/23
LEON	APA 48	BLT 2/23, 75MM
SUMTER	APA 52	BLT 3/23
STORM KING	AP 171	RCT 23, REG. TPS.
ALMAACK	AKA 10	RCT 23, REG. TPS.
WHITE MARSH	LSD 8	CO. C MED. TKS.
BELLE GROVE	LSD 2	70 LVT (2)'S

TRANSDIV 30 - 24th REG'T.

KNOX (F)	APA 46	BLT 2/24
CALVERT	APA 32	BLT 1/24
FULLER	APA 7	BLT 3/24
JOHN LAND	AP 167	RCT 24, REG. TPS.
BELLATRIX	AKA 3	RCT 24, REG. TPS.
GEO. F. ELLIOTT	AP 105	CORPS TPS.

DIAGRAMMATIC CHART
NOT TO SCALE

PREPARED BY 5th AMPHIBIOUS FORCE

ANNEX (1) TO ENCLOSURE (C)
Commander Joint Expeditionary Force Report of Forager Operation

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ENCLOSURE (D)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

COMMENTS ON OPERATION OF AMPHIBIOUS VESSELS AND VEHICLES

1. Comments are submitted by type for the various classes of amphibious vessels and vehicles used in the MARIANAS Operation. Their performance was, on the whole, entirely satisfactory and in many instances was outstanding.

2. No comment has been made covering PCS, PC and SC used as control vessels in these operations as they are not at present essentially amphibious vessels.

LSD - LANDING SHIP DOCK

3. In the MARIANAS campaign and in recent operations, LSDs have been used chiefly for the transport of medium tanks preloaded in LCMs. They were likewise used to transport LCTs when transportation by LST was impracticable due to lack of facilities for loading. (SOPAC to GUAM). One LSD, BELLE GROVE, with dock decked over, was used to transport 70 LVTs to SAIPAN. This is nearly double the unmodified capacity.

4. LSDs carrying tanks, likewise transported their operating crews and the crews for the LCMs. BELLE GROVE was able to transport LVT operating crews, but the majority of troops to man the LVTs were placed on board after arrival in the transport area. LSDs discharged tanks and LVTs in the open sea with moderate swell without difficulty. LSDs were later used to transport tanks and LVTs from SAIPAN to TINIAN. Loading and unloading operations were again accomplished in the open sea without casualty. The surety of operation of these ships has markedly increased.

5. Two LSDs were used for docking and repairing LCMs and LCV(P)s. All LSDs leaving PEARL were equipped as boat repair stations and additional repair personnel and spares were placed on board prior to departure from base. As a result of the highly efficient performance of these two ships, about 90% of all boats operating off SAIPAN were kept in running order despite most unfavorable operating conditions.

6. On departure of transports, both SAIPAN and TINIAN Boat Pools were transferred to the ASHLAND and BELLE GROVE. These ships berthed and messed over 700 personnel and maintained upwards of 160 boats then operating with the pools.

7. Both the BELLE GROVE and ASHLAND, retained at SAIPAN as service units, have the dock decked over. Although this alteration prevents entry of craft larger than an LCM to the dock, it provides increased carrying capacity for LVTs, or the loading of additional cargo and permits the accommodation of additional personnel. ASHLAND transported 15 OY observation planes in addition to her full load of tanks. These ships are invaluable now; when portable decks are provided, their all around usefulness will be greatly increased.

LST - LANDING SHIP TANK

8. In the MARIANAS and in other recent operations, LSTs have been used in transporting LVTs and DUKWs from the embarkation point to the Line of Departure. In so far as practicable, they transport the troops which will land in the LVTs and DUKWs loaded in them, the spares, fuel and personnel necessary to service these vehicles, and the supplies required to support the troops and artillery landed from them during the first days of the assault. The use of the LSTs as a combat loading unit has almost entirely superseded its use as a straight cargo carrier in Central Pacific operations. In the MARIANAS Operation about 300 troops remained attached to LSTs for a total of about 52 days.

9. LVTs and DUKWs oper ated from LSTs in unloading operations, both afloat and at the reef edge, without difficulty.

10. LSTs were used to unload other vessels. They were especially useful in transferring drummed petroleum products which were landed at the edge of the reef off YELLOW Beaches at SAIPAN and man-handled through the shallow waters of the lagoon to the shore. Little difficulty was found in beaching on the reef, and only minor damage was sustained under normal sea and surf conditions.

11. They were employed to fuel and water small craft, as storage for diesel and water reserves and, when not otherwise employed, they made the rounds of vessels whose evaporator capacities exceeded consumption and collected the excess. The service of supply has not been adequate, particularly in water. As a consequence, LSTs have been sent in to the objective with tanks as nearly full as possible. This is not the best beaching condition, but must apparantly be accepted until service improves.

12. During the SAIPAN-TINIAN operation, they were used as casualty collecting stations during the early stages of the assault and until transports and hospital ships could be brought in close to the Line of Departure. They took station just to seaward of the Line of Departure and remained there until loaded to capacity. Transfers were then made to APAs from alongside.

13. They proved to be excellent troop and cargo ferries on the SAIPAN-TINIAN run and transported as many as 1200 troops at a lift.

14. It was found to be highly desirable to provide LST Flotilla Commanders with PCS as temporary flagships. In this way, these officers were able to exercise close supervision over LSTs in the assault and during unloading. LSTs were better handled than in any previous operations, due to improved communications available in the PCS and the ability of the Flotilla Commander to go and see what the trouble might be. Flotilla Commanders en route to objectives, and during night retirements, used destroyers as flagships, and found that control of up to thirty LSTs plus about fifteen screening vessels (mostly LCIs) could be maintained more effectively.

LCT - LANDING CRAFT TANK

15. LCTs were moved to the objective deck loaded on LSTs or in LSDs. They were launched at sea under conditions of moderate swell promptly and without difficulty.

16. LCTs were able to operate at the reef edge off YELLOW Beaches at SAIPAN in moderate sea and surf without sustaining appreciable damage. On exposed WHITE Beaches at SAIPAN, considerable hull damage resulted.

17. LCTs were furnished an SCR 610 and communications were greatly improved over past performance. Personnel were not adequately trained or indoctrinated. If LCTs are made available to the Amphibious Forces sufficiently in advance of an operation, this matter will be attended to. LCTs have no radio personnel in their allowance.

18. On several occasions, LCTs were launched in the middle of a pitch black night. On reporting for duty, they were told to go alongside some ship and load. How they got there remains a mystery. As is the case of LSTs it is considered highly desirable to provide the LCT Flotilla Commander with an SC or similar small control craft in order that he may personally supervise the operation of the craft for which he is responsible.

LCI(G) - LANDING CRAFT INFANTRY (GUNBOATS)

19. These vessels again conclusively showed their value in the MARIANAS campaign. At GUAM they provided covering fire in the immediate vicinity of the beaches to support the operation of Underwater Demolition Teams engaged in removing obstacles blocking approaches to the landing areas. They preceded the assault waves in landing operations at SAIPAN, TINIAN, and GUAM and provided close in support fire for the initial landings. Thereafter, they provided supporting fires on the flanks of the attack at close range,

and, during darkness, acted as close in patrols to prevent enemy movement by boat.

20. During subsequent operations they were engaged in fire support missions against specific targets near the shore and covered the flanks of troops against waterborne attacks initiated from TANAPAG and GARAPAN. All these tasks were performed in a highly efficient manner.

21. During night attacks on transports stationed off the objectives, they provided effective smoke cover for the larger ships and they provided fire support against low level attacks during the early stages of the operation for which their relatively powerful close range AA batteries are well suited.

22. They were used for salvage operations and were equipped and prepared to act as fire boats in case of need. The type is considered an efficient and useful amphibious unit.

SELF-PROPELLED PONTOON BARGES

23. Self-propelled 3 x 7 pontoon barges were effective in unloading operations. The design with outboard motor is much more effective when working coral beaches than those with built in units.

24. They can be operated on shelving beaches, due to their shallow draft, however, they should be equipped with a ramp for debarking vehicles and the addition of a light crane driven from the engine would materially increase their value, as cargo handling equipment is always at a premium. They were most readily worked alongside pontoon causeways.

25. They were likewise used as floating fueling stations for LVTs and DUKWs and as off shore fuel dumps in the TINIAN operation.

26. They are satisfactory cargo carriers in moderate seas and are well suited to operations on shallow coral fringed beaches.

LVT - LANDING VEHICLE TRACKED

27. LVTs transported the assault waves in the attack on all three objectives in the MARIANAS. In each case they were launched in the immediate vicinity of the Line of Departure and the handicap of slow speed was reduced. Waves were promptly formed and despatched without difficulty. Reserve troops, boated in LCV(P)s, were transferred to LVTs in the troop transfer area and landed over the reefs. On seaward trips, LVTs were used to evacuate casualties from beaches inaccessible to boats.

28. The fringing reefs were negotiated by LVTs in a satisfactory manner, although a few were overturned in the surf. They were used in transferring cargo over the reef from LSTs and direct to inland dumps ashore. Although they are slow, have a limited cargo capacity, and are prone to develop mechanical troubles, they can work the clock around despite tidal conditions. LVTs were serviced nightly in LSTs, being loaded and launched at daylight. It is considered that early and regular servicing accounted for the relatively large number that remained in operating condition.

29. LVT(A)s provided close support fire during the assault to and through the beaches. They not only served as light tanks ashore, but were able to skirt centers of opposition by reentering the water and emerging again at a point from which they could outflank the position. From stations in the lagoon they assisted in protecting the north flank of RED Beach positions from waterborne attacks initiated in TANAPAG and GARAPAN. (We will probably have more of these attacks later).

30. LVT(4)s are a great improvement over the LVT(2)s, as their cargo is made accessible through the stern ramp. Both LVT(2)s and LVT(4)s were used throughout the early stages of unloading and handled a very considerable quantity of cargo. In the sea running during this part of the operation, they were readily handled in and out of LSTs. LVTs can not be operated safely in coral if the surf is at all heavy.

31. These craft are considered to be indispensible when landing across barrier reefs.

DUKWS

32. DUKWS, like LVTs, proved eminently satisfactory both in landing troops and transporting cargo. They carried cargo direct from ships to supply dumps, without the necessity for transfer either at the reef or at the beach, thereby greatly speeding supply of essential items to the front lines. During periods when heavy swells caused such unfavorable surf conditions at the beaches that LVTs and boats could only operate with considerable difficulty and danger, DUKWs rode the swells steadily and landed through the surf with apparent ease.

33. DUKWs have the basic disadvantages of the LVT, slow speed, relatively small cargo capacity for size, and, like the LVT(2), they require lifting equipment for ready unloading; however they do not tear the roads to pieces and the driver has better all around vision. They have been found to be particularly useful in handling artillery from LSTs direct to emplacement positions. They are considered to be an essential amphibious vehicle.

LCC - LANDING CRAFT CONTROL

34. LCCs are not suitable for use as control vessels due to unsatisfactory living conditions over extended periods. When loaded in APAs or AKAs, each one displaces an LCM, and their weight is such that they can be handled with safety only under favorable conditions.

35. They are satisfactory as guide boats for the leading waves and as tenders to control craft. They have much unnecessary equipment, but no adequate facilities for messing or berthing the large complement and additional control personnel. The heavy battery is not necessary as control craft and guide boats should be seen but not heard, except over the voice radio or the bull horn.

36. Control is a 24 hour a day job, lasting for a week or more. It has been recommended that SCs be assigned for use as secondary control vessels unless a smaller and lighter craft with adequate facilities can be made available.

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

[redacted]

ENCLOSURE (E)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

OPERATION OF PONTOON BARGES AND CAUSEWAYS

SAIPAN - TINIAN

1. Construction Battalion Detachments 1035 and 1038 were assigned for NL Pontoon Barge and Causeway operations for SAIPAN. Of the eleven 2x60 causeways originally assigned for the operations under CTF 52, three were destroyed in the explosion on 21 May at West Loch, Pearl Harbor. There were 24 (3x7) pontoon barges with outboard motors brought to the northern area, deck loaded on LSTs. Two 2x30 causeways were side mounted on each LST so loaded. Two platforms and two 2x60 causeways were diverted to GUAM. No difficulty was experienced in transporting the above pontoon equipment to the MARIANAS. Additional causeways were brought in side loaded on several garrison force ships.

2. On D/3 the first causeway was in place just south of the stone pier at CHARAN-KANOA. This causeway was rapidly extended approximately 900 ft. seaward to reach water deep enough for LCTs. On D/16 three causeway finger piers were assembled at Green Beach. The various piers were modified and enlarged as more of the garrison force pontoon sections arrived. On 11 July at the request of garrison forces, work was started on extending the main pier in TANAPAG HARBOR, by transferring causeway sections from CHARAN-KANOA to TANAPAG.

3. The pontoon barges were placed into operation on D/2 and were used to advantage for unloading in the shallow waters over the coral shelf. They were valuable in transporting material that could not easily be handled in boats or LCTs.

4. The above SeaBees also repaired the stone pier, at CHARAN-KANOA, which had suffered considerable danage during the bombardment.

5. On July 24th (J-Day) pontoon causeway pier construction was begun at White Beach One and Two at TINIAN. The pontoon barges (approximately 16-18) were in operation in the TINIAN assault. Heavy swells broke up one pier in two days causing almost complete destruction, but the other, although damaged, was finally moved into TINIAN Harbor after the weather abated.

6. The following conclusions are drawn as a result of this operation:

(a) The number of causeways and pontoon barges that should be used in future operations should be limited only by the facilities available for transporting them.

OPERATION OF PONTOON BARGES AND CAUSEWAYS
SAIPAN - TINIAN

(b) One repair ship should be designated to handle all spare parts and repair pontoon barge motors.

(c) 4x12 pontoon sections with bridge and hinge connections should be sent out as practicable. These can be used to make slips for small boats perpendicular to main stem of pier.

(d) Pontoon causeways will not sustain, without serious damage, the action of swells 6-8 feet or higher for any length of time. Broaching sections of causeways on sandy beaches will help limit damage until sea abates.

(e) The use of specially trained SeaBee platoons is essential for assembling, and loading causeways and barges, and for handling them at destinations. However, since these trained platoons are part of the assault forces, and must be withdrawn for further operations, the garrison SeaBees should have trained barge crews attached, to take over the operation of barges after withdrawal of assault SeaBees.

(f) The operation of barges during the assault phase was handicapped by the facts that (1) there were no means of anchoring the barges; and (2) there were no means of signalling to barges, either by voice or by visual. These defects will be investigated, and an effort made to correct them.

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

[redacted]

DECLASSIFIED

ENCLOSURE (E)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

OPERATION OF PONTOON BARGES AND CAUSEWAYS

SAIPAN - TINIAN

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DECLASSIFIED

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OPERATION OF PONTOON BARGES AND CAUSEWAYS
SAIPAN - TINIAN

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[redacted]

JOINT EXPEDITIONARY FORCE (TF 51)
OFFICE OF THE COMMANDER
USS ROCKY MOUNT, Flagship
AUGUST 25, 1944

ENCLOSURE (F)

TO

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

N-A-V-A-L A-N-D A-I-R B-O-M-B-A-R-D-M-E-N-T-S

ENCLOSURE (F)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

NAVAL AND AIR BOMBARDMENTS

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COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

ENCLOSURE (F)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

I. PLANS

GENERAL

1. The planning of the operation against the MARIANAS centered on meeting difficulties not previously encountered in amphibious operations against atoll islands. The more important of these difficulties were:

(a) The nature of the terrain and the consequent opportunities given the enemy for effectively concealing extensive fortifications situated where they would not be particularly vulnerable to naval gunfire;

(b) The size of the islands and the certainty that they would be bitterly defended, thereby necessitating a continuous and progressive plan of support, as contrasted with the heavy but brief previous operations;

(c) The necessity for large ammunition expenditures over a considerable period, combined with the very serious problem of re-supply;

(d) The fact that shore based artillery could be of no assistance during the early phases of the landing (except in the case of the landings on TINIAN);

(e) The reef conditions which prevented the LCI gunboats at certain beaches from approaching within rocket range.

DOCTRINES AND PRINCIPLES

2. A close study was made of existing intelligence concerning the objectives, and a general outline of the gunfire requirements was distributed as Annex D to CTF 51 Operation Plan A10-44. The Air Support Plan was distributed as Annex F to CTF 51 Operation Plan A10-44. Detailed planning was thereafter instituted by the Task Force Commanders involved and will be covered in greater detail in subsequent paragraphs. All of such detailed planning was conducted with due regard to the following basic doctrines:

(a) CinCPac Confidential Letter 13CL-44, "Doctrine for Naval Gunfire Support of Landing Operations."

(b) FIFTH Amphibious Force Circular Letter AL14-44, "General Instructions for Planning Naval and Air Bombardment of Shore Positions."

(c) FIFTH Amphibious Corps General Order 40-44, "Naval Gunfire Support in Landing Operations."

(d) ComDesPac Confidential Serial 0725 of 3 April 1944, "Destroyer Gunfire Support in Landing Operations."

(e) Annex D to CentCom TWO, "Shore Fire Control Communication Plan."

(f) FIFTH Amphibious Force Circular Letter AL10-44, "Support Aircraft - Organization, Operation and Training."

(g) Enclosure (A) to Commander FIFTH Amphibious Force Conf. Ltr. A16-3(6), Serial 038 of 2 October 1943, "Employment of Air in Amphibious Operations".

CENTCOM TWO

3. In respect to paragraph 2(e), a new policy was placed in effect by CinCPac. The basic Shore Fire Control Communication Plan was issued in permanent form intended to apply not only to FORAGER but to all subsequent amphibious operations. An appendix to the plan was issued, however, giving the organization of the shore fire control parties and other details applying to FORAGER only. This procedure enabled new ships to become familar with the basic details on first joining the Pacific Fleet, even though not assigned to amphibious operations at the time.

PHASE I - SAIPAN

4. Plans for the capture of SAIPAN were prepared by Commander Task Force 52 (Vice Admiral TURNER). Detailed planning embodied a close study of all information available plus a similar study of the gunfire and air bombardment requirements of the Northern Troops and Landing Force and its components.

Full advantage was taken of the advice of officers representing the Northern Troops and Landing Force and of Fire Support Units. All detailed planning for SAIPAN was completed prior to departure from PEARL HARBOR, only minor modifications being made after that date.

ESSENTIAL FEATURES

5. The following essential features were incorporated in basic plans:

(a) Major air strikes by aircraft of fast Carrier Task Forces (TF 58) commencing on D-3. (Actually the first strike, a fighter sweep, was made on D-4). These strikes were to gain complete control of the air and to soften the islands for the landings.

(b) An extensive bombardment on Dog minus TWO by Battleships of Task Force 58. This bombardment was designed to knock out major enemy defenses and to support initial mine-sweeping activities in accordance with requirements specified by CTF 52.

(c) Harassing fire throughout the night of Dog minus TWO by Destroyers of TF 58, as outlined by CTF 52.

(d) Bombardment by ships of TF 52 and TF 53 on Dog minus ONE, to soften defenses and provide close support of Underwater Demolition Teams and mine-sweeping operations.

(e) Harassing fire throughout the night of Dog minus ONE by vessels of TF 52.

(f) Intensive preparation fire commencing at dawn of Dog Day.

(g) Large carrier strikes at How minus SIXTY plus a special VF straffing attack on the landing beaches when the LVTs were within 500 yards of shore.

(h) Intensive close support of landing.

(i) Call fires, scheduled fires and illumination after landing until the final capture of the island.

The essential features as listed were incorporated in detail in Annex (C) to CTF 52 Attack Order A11-44 to which reference is hereby made. All features were planned to cover either the preferred or the alternate landing plan.

ENCLOSURE (F)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

SPECIAL FEATURES

6. The following paragraphs describe special features of planning which are considered worthy of special note. All other details not specifically mentioned were planned in accordance with the basic principles and doctrines of amphibious operations as outlined in the references heretofore mentioned.

MAPS

7. A specially gridded, combined Air and Gunnery Target Map was designed in collaboration with JICPOA, FIFTHPhibCorps, Commander Support Air and the Force Intelligence Officer. It was desired to eliminate the confusion, long radio transmissions, and possibility of error which normally arise when grid coordinates are used.

8. The usual 1000 yard grid was retained, but each 1000 yard square was assigned an arbitrary "Area" number. Each of these numbered squares was then subdivided into twenty-five 200 yard squares, each designated by a letter of the alphabet, from A through Y. Any point or area could then be quickly and conveniently described by a number and a letter designation - i.e. "Target Area 258M". Several squares in one area could be designated "258 MNOPQXYZ", saving needless repetition of the square number.

9. This special grid and numbering system was superimposed on the Air and Gunnery Target Maps of all three objectives in colors visible by red light. The system found enthusiastic and universal acceptance and grid coordinates were very seldom used.

SHORE FIRE CONTROL COMMUNICATIONS

10. Shore fire control communications were arranged on the same basis as that which worked so successfully during the FLINTLOCK operation. Annex D to CentCom TWO was issued during the early phase of planning and provided for nine frequencies for each of four task forces. As the operations against GUAM and TINIAN were to be commenced subsequent to that against SAIPAN, all four groups were initially available for SAIPAN, later to be reduced to two groups.

11. Initial call fire assignments and frequencies were provided in the Schedule of Fires, and were to become effective immediately upon the landing of the shore fire control parties.

12. Naval Gunfire Control frequencies were assigned in Annex D to CentCom TWO, and care was taken to see that frequencies were selected which would be suitable for both Army and Marine Corps equipment. Other provisions of Annex D provided communications for air spot for shore artillery using ships planes, and instructed ships to maintain continuous listening watch on the appropriate Naval Gunfire Control Net.

13. Control of aircraft in the vicinity of the target was assigned to Commander Support Aircraft whose headquarters were in the Flagship of Commander Joint Expeditionary Force.

BOMBARDMENT OBJECTIVES

14. The landing beaches finally selected for both the alternate and the preferred landing plans were extremely wide - over 6000 yards in the case of the preferred landing plan. The beaches were dominated by known strong points on AFETNA POINT, AGINGAN POINT, MUTCHO POINT, TANAPAG and MAKUNSHA. The bombardment plan consequently provided for liquidation of strong points on Dog minus TWO and Dog minus ONE, softening of landing beach defenses on Dog minus ONE, and the maximum concentration on landing beaches on Dog Day, prior to How Hour.

15. For the liquidation of strong points on Dog minus ONE and on Dog Day, fire support ships were divided into "Fire Support Units." Each such fire support unit was assigned an area of responsibility designated as a "Fire Support Sector." Each Unit was to be responsible for engaging targets of opportunity and known defenses within its sector. Coverage of known defenses was insured by the detailed schedule of fires issued as Appendices 2, 4 and 5 to Annex C, CTF 52 Attack Order A11-44.

16. All fire support ships were continually reminded that their primary mission was counter battery fire.

17. Aircraft were assigned particular targets by Commander Support Aircraft on request from troops ashore.

CLOSE SUPPORT

18. For the close support of the landing, Fire Support ships were assigned positions between and on the flanks of the landing waves and fire was scheduled as mentioned above. This fire was to be supplemented by 24 LCI(G)s which were to precede the leading waves. It was anticipated that reef conditons would not permit LCI(G)s to approach within rocket range on the northern beaches. The same reef conditions necessitated fire support ships remaining at least 2000 yards off shore, with most ships at an even greater distance.

19. Detailed plans for the close support of the landing and the actual execution of the close support phase were prepared and conducted by CTG 52.2 (Rear Admiral HILL).

LCT(6) MORTAR PLAN

20. In an effort to intensify the last minute preparation fire, and to replace the fire power lost by inability to use LCI(G) rockets, experiments were conducted in HAWAII with an LCT(6) mounting eight 4.2 inch Army mortars. It was felt that the rapid rate of fire, high trajectory and increased range of these weapons, delivered while the craft were steaming parallel to the beach would be a valuable addition to the beach preparation.

21. The plan featured mounting the mortars at PEARL HARBOR, transporting the LCTs to the scene of the operation deck-loaded on LSTs, launching them in the MARIANAS. When their task was completed, the mortars would be dismounted and resume their normal assignment with shore troops, and the LCT(6)s would be available for unloading cargo.

22. The experiments successfully covered all phases of firing; loading and launching. However, during the rehearsal period, the LSTs encountered heavy weather, with the result that several LCTs were lost overside when their lashings gave way. Due to shortage of time in which to replace the mortar ships and because it was felt that the trip to the objective would present the same hazard, the project was abandoned. It is felt that the experimentation was of value, and that the project has future possibilities, using either LCTs or LCIs.

PHASE TWO - GUAM

23. Preliminary planning for the operation against GUAM was instituted by CTF 53 at PEARL HARBOR, and completed in the South Pacific Area. As the landings on GUAM were considerably delayed beyond the expected date, it was possible for CTF 53 to make modifications and improvements, based on late information, during the period that TF 53 lay in the forward assembly area in the MARSHALLS. Details of planning by CTF 53 will be included in his report under separate cover.

PHASE THREE - TINIAN

24. Original plans contemplated the use of the same fire support ships for TINIAN as for SAIPAN, as both actions were to be completed successively. As conditions could not be fully predicted in advance, gunnery planning in detail was not instituted until after arrival at the scene of operations.

25. The initial bombardment by TF 58 on Dog minus TWO included known defenses and observed installations on TINIAN. In addition, on Dog minus ONE and Dog Day, one Fire Support Unit was designated to cover the western side of TINIAN, and another Fire Support Unit the eastern side, with the primary mission of counter battery against enemy guns able to fire at our ships and our forces at SAIPAN.

26. Continuous air bombardment of TINIAN was conducted throughout the SAIPAN battle. All aircraft not required at SAIPAN were diverted to TINIAN and expended their ammunition on worthwhile targets there.

27. The remainder of planning for TINIAN was completed by CTF 52 (Rear Admiral HILL) after the reduction of SAIPAN. Details are covered in his report under separate cover. Rear Admiral HILL relieved Vice Admiral TURNER as Commander Task Force 52 at 0000 GCT 15 July 1944.

II. PRELIMINARY STEPS

SHORE BOMBARDMENT DRILLS - TF 52

28.

(a) In an effort to familiarize Shore Fire Control Spotters, Naval Gunfire Liaison Officers, and all firing ships with their mutual problems in shore bombardment, V Amphibious Corps arranged a firing course on KAHOOLAWE ISLAND. In collaboration with

Commander Cruisers Pacific and Commander Destroyers Pacific, Cruiser and Destroyer Doctrines of shore bombardment were formulated, and standard procedures devised. A qualification Test was written, embodying all phases of shore bombardment, and a strenuous effort was made to enable all fire support ships in the HAWAIIAN Area to complete the test prior to departure. The shore fire control parties who were to engage in the operations conducted these fires from the shore observation post on KAHOOLAWE.

(b) Numerous communication drills were held in the HAWAIIAN Area between fire support ships and shore fire control parties ashore. These drills were designed to develop flexibility and proficiency in shifting frequencies and establishing communication.

(c) Arrangements were made for shore fire control parties to visit fire support ships, particularly those to which initially assigned. Naval Liaison Officers were assigned to temporary duty aboard Cruisers and Destroyers during periods when they could be spared from duty with troops.

This program developed an understanding and team work which contributed immeasureably to the proficiency with which fire support was later developed.

BOMBARDMENT TRAINING - TF 53

29. Similar firing exercises and communications drills were arranged and conducted by CTF 53 in the South Pacific Area, both for vessels of Task Force 52 and Task Force 53 - (many TF 52 fire support ships did not physically join TF 52 until arrival at objective and were thus deprived of the indoctrination and rehearsal in the HAWAIIAN Area). The result was that practically all fire support ships were thoroughly indoctrinated in the technique of shore bombardment prior to the start of the operation.

REHEARSALS

30. A comprehensive program of rehearsals was extremely difficult, due to the large number of fire support and other ships involved. However, even though all ships could not be present, every effort was made to conduct a realistic rehearsal program. Task Force 52 rehearsed with actual landings on MAUI Island and simulated landings on KAHOOLAWE Island.

Rehearsals included the following:

(a) Simulated support of actual landings on MAUI, during which timing and approaches were coordinated, and Shore Fire Control Parties were landed to establish communication with their assigned ships.

(b) Rehearsal of Dog minus ONE bombardment plans on KAHOOLAWE with reduced ammunition allowance.

(c) Call fires on KAHOOLAWE using ship and frequency assignments as for the operation itself.

(d) Rehearsal of close support of landing, using reduced ammunition allowances, concurrent with a simulated troop landing on KAHOOLAWE.

(e) Rehearsal of close support of beach reconnaissance using live ammunition.

(f) Rehearsal of air bombardment under direction of Commander Support Aircraft.

(g) Live bombing of KAHOOLAWE ISLAND.

(h) Simulated How Hour strafing runs.

31. Subsequent to the rehearsal, and prior to embarkation from HAWAII, conferences were held and attended by all available interested parties. Final revision of plans included modifications developed by these conferences, by the rehearsal, and by latest information.

32. The Air Bombardment conference was attended by all carrier pilots, air officers, and Commanding Officers of carriers in the HAWAIIAN Area. Later, special conferences were held at MAJURO to bring the lessons of the rehearsal to squadrons not able to take part.

33. A similar rehearsal program was conducted by CTF 53 in the South Pacific Area, in spite of the severe difficulties imposed by the geographical dispersion of the troops and ships included in TF 53. Details will be covered more fully in his report.

ENCLOSURE (F)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

AMMUNITION

34. The choice of types and the replenishment of ammunition are problems of increasing magnitude. Types available for FORAGER included no new types except jettisonable fuel tanks filled with napalm thickened gasoline which were given their first combat trial in the TINIAN attack. It was hoped that HC projectiles with base fuzes giving more delay would be available. This would allow deeper penetration. None was available however. Loading of ships was approximately the same as for FLINTLOCK and worked out very well.

35. The original plan provided for a limited replenishment at the objective from assault shipping (APA, AKA, LST and LSD). This replenishment consisted of one bombardment allowance of 5 inch AAC for all Fire Support Destroyers and a similar bombardment allowance of 8 inch and 6 inch HC for all cruisers, plus a limited re-supply of depth charges, rockets and 40mm. The remainder of the ammunition replenishment was planned for ENIWETOK and reserves were assembled there in AEs, barges and cargo ships. It was the intention to return fire support ships to ENIWETOK in relays as replenishment became necessary.

III. EXECUTION AND EFFECT - SAIPAN

36. Much concern had been felt as to the numerous coast defense guns which photographs had revealed at strategic points around the Island. The heavy caliber bombardment on Dog minus TWO and Dog minus ONE and the air strikes effectively silenced those installations and shore batteries caused only slight annoyance thereafter, except for one (?) battery at the Northern tip of TINIAN which was not completely silenced until shortly before SAIPAN was secured.

The following ships suffered hits from shore batteries during the SAIPAN assault:

(a) BRAINE (DD). Hit by one 6 inch shell on 14 June from the vicinity of TINIAN TOWN. Her after torpedo tubes were disabled, and the after fire room damaged.

(b) CALIFORNIA (OBB), hit by minor caliber fire off CHARAN-KANOA on 14 June. Considerable damage to radio and fire control equipment.

(c) TENNESSEE (BB) hit by four 4.7 inch projectiles from the Northern tip of TINIAN on 15 June. One 5" turret disabled.

(d) PHELPS (DD) hit by two 8 inch shells from the South portion of GARAPAN on the night of 17 June. Damage to wardroom, the number three boiler placed out of commission and steam lines to number four boiler broken.

(e) LST 119 hit by one shell while beached at SAIPAN 23 June. Shell believed to have been fired from TINIAN. Damage to steering gear and electrical wiring.

All the above continued to deliver effective fire until relieved.

SUPPORT OF BEACH RECONNAISSANCE

37. The close support of Underwater Demolitions Teams on Dog minus ONE suffered because of the fact that the mean center of impact was too far inland - leaving enemy snipers near the beachedge unhindered and able to continue firing throughout the period. In future programs of this nature, particularly against a gently sloping beach, it should be emphasized that at least 20% of burst must fall in the water if the center of impact is to be properly placed on the beach itself. This, of course, applies only to the period during which the Underwater Demolition Teams are approaching the outer limits of the reef, and fire must be lifted if these teams approach the beach closely.

CLOSE SUPPORT OF LANDING

38. The extreme length of the beaches presented an obstacle to a great concentration of fire on the beaches. Additional fire was provided by directing Fire Support Unit EIGHT to deliver enfilade fire at the beach and areas behind it from positions off the south tip of SAIPAN. The disposition of fire support ships during the close support phase is shown graphically in the Schematic Landing Diagram attached hereto as Annex 2.

39. It is felt that the beach preparation could have been improved by the following additions and ammendments to the original plan and execution thereof.

(a) Continuous deep preparatory fires along the high ground 1500 yards in rear of and overlooking the landing beaches, commencing well before How Hour and continuing throughout the initial combat phase. This would have hindered and obstructed the excellent observation enjoyed by the enemy in directing his mortar and artillery fire.

(b) Prohibit small caliber fire by LCI(G)s until after crossing the line of fire support ships or until within 2000 yards of the beach. Many rounds were wasted because of difficulty of accurate aim at greater ranges.

(c) Lower the center of impact for close support ships so that about 20% of rounds fired fall in the water - thereby insuring that all adjacent portions of the landing beach are covered. Fire should then be shifted gradually inland and to the flanks as landing craft approach. Original plans included this recommendation.

(d) Permit strafing and bombing of the beach areas concurrently with naval gunfire immediately prior to How Hour. This suggestion is not necessarily inconsistent with the previous suggestion of increased deep supporting fire.

CALL FIRES

40. Call fire assignments and communications in general funcitioned excellently. The communications involved can best be illustrated by the following figures:

Total NLOs on Control Net	40
Total Fire Support Ships Used	66 (Not including TF 58)
Total No. of SFC parties in Action	27
Total number of assignments made	524

The total number of assignments made includes deep support, as well as call fires, but does not include scheduled fires on Dog Day nor initial call fire assignments. The soundness of the basic communication plan is best attested by the ease with which so many assignments were made. A brief description of the procedure employed follows:

41. The Naval Gunfire Officer attached to Landing Force HQ ashore twice daily submitted consolidated requests for fire support ships. Requests for day assignments were submitted prior to 0400 and requests for night assignments prior to 1500. Ships were then selected to fill requests based on ammunition aboard and time idle since last assignment, and their availability checked with Screen Commander. Upon receiving his concurrence, assignments were made and notice given to each individual ship and to the corresponding regimental or Division Liaison Officer, who, in turn notified the Shore Fire Control Spotter.

42. Notice of assignment included a designation of the frequency to be used and the general area from which fire was to be delivered. Some difficulties were experienced in establishing contack, but these were usually solved by a request for assistance to the Regimental Liaison Officer. The Task Force Commander periodically checked each call fire net to see if conditions were satisfactory.

43. It is felt that the continuing program of training at KAHOOLAWE Island, which was previously mentioned, is responsible for much of the smoothness and facility with which ships handled their call fire assignments.

CLOSE SUPPORT FIRES

44. Close-supporting fires consumed the majority of the 5 inch ammunition expended (139,691 rounds). Much of this ammunition was expended at so-called "area targets" of somewhat dubious value. "Area targets" are usually fired on the suspicion, not the certainty that enemy installations are hidden in the area covered. Consequently to be effective, in close support, such "area targets" should generally be fired only immediately prior to an actual attack made while the neutralization effect is still present. Field artillery is much better qualified for this type of fire by reason of its greater accuracy and smaller burst patterns.

45. The topography of SAIPAN and similar islands makes them ideally suited to the use of naval gunfire in deep support. A central ridge formation runs the long axis of the island, and enemy defenses and artillery were emplaced in defilade in the valleys which ran generally perpendicular to the shore line. Naval gunfire, employed up those valleys and considerably in advance of our troops have been particularly effective. A considerable amount of such deep supporting fire

was profitably employed, particularly by the Cruisers, but expansion and intensification of the program was hindered by the demands for close-support by almost all ships available.

DEEP SUPPORTING FIRES

46. Special missions of deep support were scheduled whenever ships were available. Such missions were planned and assignments made on a day to day basis, in order that last minute developments might be included. Target maps were maintained for both SAIPAN and TINIAN. On these maps were posted all new intelligence information, results of photo studies, and targets discovered by any other means. Records were kept of the action taken against each target and the result. All such information was continuously exchanged with Commander Support Air, and targets were divided between Air and Naval Gunfire on the basis of suitability. A fire support ship would then be assigned a sector to cover, specific targets would be enumerated, an Air Spot made available, and an ammunition allowance specified. After completion of the mission, the firing ship was directed to send a detailed report of results.

47. Special missions of this nature were scheduled throughout the Northern half of SAIPAN. Numerous special bombardments of GARAPAN and TANAPAG were scheduled. In the later stages of the operation (from TANAPAG Northward) Northern Troops and Landing Force Headquarters submitted a daily list of target requests for such special missions, thereby coordinating the gunfire activities more closely with troop needs. Particular commendation should be extended to the BIRMINGHAM, CLEVELAND, MONTPELIER and INDIANAPOLIS for their thoroughness on these missions and for the completeness and accuracy of their reports on bombardments of both SAIPAN and TINIAN.

48. It is significant to note that prisoner of war reports continuously emphasized the effectiveness of naval gunfire and artillery in disorganizing the enemy by disrupting communications preventing troop assemblies and prohibiting movement of supplies and reserves.

ILLUMINATION

49. Illumination by means of star shell was of unanticipated value, due to the many caves in which the Japanese could hide until darkness and then infiltrate among our troops. Future ammunition allowances should include an increased percentage of star shells in view of their great assistance

to the troops ashore. Incidentally, illumination was used to a considerable extent during the "mopping up" period after SAIPAN had been secured.

50. Much illumination was delivered unnecessarily. Several Shore Fire Control Parties adopted the practice of adjusting illumination over the desired area, instructing the ship to maintain illumination until further notice, and then checking out of the communications net until morning. The physical strain on the Shore Fire Control Parties of maintaining position in a rapid advance, and the lack of rest in combat, is understandable, but it is certain that this practice resulted in delivery of needless illumination. In the late stages of the operation, the shortage of star shells was critical, and might have been avoided through a more cautious program of earlier expenditures.

51. Many complaints were received of empty star shell projectiles falling within our own lines. Lines of Fire for star shells must be just as carefully controlled as in the case of explosive projectiles.

HARASSING FIRES

52. Heretofore harassing fire has been successfully employed against small atoll islands over a relatively short period of time during which ammunition supply was not a very serious problem. In spite of the large land mass at SAIPAN and the necessary limitation of ammunition expenditures because of the duration of the assault and the difficulty of replacement, good results were obtained by harassing fire. Particular attention was given to known enemy concentration points and lines of communication and supply to prevent movement of reserves, movement of supplies, and the dissemination of information vital to the enemy in organizing his forces for for defense. Evidence of the success of our fire has been supplied by POW reports giving the difficulties the enemy had in moving troops and supplies, and in reorgainzing troops for defense, even in the rear areas.

53. TINIAN TOWN was harassed nightly, throughout the operation,, and intermittent star shells were placed over SUNHARON HARBOR to prevent enemy watercraft movements. The USHI POINT Airfield on TINIAN was also harassed nightly, to deny it to enemy use. After repeated air alarms, a program was instituted of harassing both TINIAN fields and the MARPI POINT field during periods of red and blue alerts. Several enemy planes were destroyed by this fire and it is believed that landings and take offs were prevented.

SAFETY MEASURES

54. The size of the objective, the nature of the terrain and the provisions of the Landing Force Attack Plan made it impossible to establish any so-called "Permissable zones of fire." Instead all direct support ships were controlled entirely by their Shore Fire Control Parties, and observed fires were presumed to be safe. Ships fired targets of opportunity only when specifically authorized to do so, unless firing by direct spot plainly well in advance of our lines. This system had the advantage of enabling ground forces to control fire through normal command channels ashore.

55. Ships assigned deep support missions were given specific target areas and a "safety line" behind which fire should not be placed. Such "safety lines" were separately designated with each ship assignment and covered the one assignment only.

AMMUNITION PERFORMANCE

56. Ammunition performed well. The very low percentage of duds and failures among illuminating projectiles was a source of surprise and gratification to all. The heat-treating process appears to be very effective.

57. White phosphorus projectiles were not very successful as incendiary agents. Easily ignited material, such as dry cane fields, were successfully burned, but brush could not be ignited except when extremely dry. The napalm-gasoline bomb is considered to be much superior to the White Phosphorus projectile as an incendiary agent. A special report on results of combat use of napalm-gasoline bombs has been made direct to CinCPac and ComInCh.

AMMUNITION EXPENDITURE AND RE-SUPPLY

58. Shortly after D-Day, it became apparent that certain types of ammunition, particularly 6 inch HC, 5 inch AAC, and Stars would shortly be exhausted. Neither time nor the number of ships available permitted keeping up with expenditures by sending ships to ENIWETOK. It was noted that the USS MAZAMA was heavily loaded with the types most in demand so her movement to SAIPAN was requested, thereby easing a very critical situation. Thereafter ammunition ships were ordered to the forward area as needed. Ships which did return to ENIWETOK were supplied there. These ships consisted primarily of Carriers, Battleships, and Destroyers assigned to escort duties.

59. Ships departing for rear areas were ordered to discharge all 5 inch AAC in excess of 60 rounds per gun and all stars

in excess of 10 rounds per gun to fire support ships remaining.. Excess ammunition was removed from all types of craft stopping at SAIPAN.

60. Rebombing of carriers presented an unusual problem, as this was ordinarily done on short notice using whatever types and quantities of bombs were on hand. On one occasion, every ship in the roadstead (including AVs and AVPs) was stripped of bombs for the carriers of TF 58. Emergency shipments ordered from ENIWETOK by ComFIFTHFleet enabled carriers to remain effective, although the bombs supplied were not always those desired.

61. Replenishment at the objective reached unexpected magnitude and transfers were constantly being made after D-Day. At SAIPAN - TINIAN the following number of replenishments were made from ammunition supply ships (including assault APAs, AKAs and LSTs)

OBB	5
CA	22
CL	35
DD	112
CV	5
CVL	4
CVE	12

Plus miscellaneous craft.
Plus numerous transfers from fire support ships leaving the area to ships remaining.

A similar program was followed at GUAM.

62. Annex (3) gives in tabular form the total ammunition transferred at the objective from ammunition ships or cargo ships, including assault ships.

63. The following administrative problems incidental to the replenishment program were encountered:

(a) Disposal of empties - Solved by loading into discharged LSTs, AKs, merchant ships, partially unloaded AEs, and temporarily into harbor craft.

(b) Permanent working parties - Obtained from Headquarters ships and transports.

DECLASSIFIED

(c) Supervision of inexperienced merchant ships carrying ammunition - Assignment of staff officers to temporary duty aboard such ships.

(d) Shortage of equipment (fenders, camels, lines, etc) - Borrowed from other craft.

64. The extent of the demand for star shells was unanticipated and the available supply at SAIPAN was almost completely consumed by the time hostilities ceased. 6820 illuminating projectiles were expended in 25 days of combat at SAIPAN (an average of 280 per night) and more could have been used at times to advantage. At least 300 stars per day of expected combat should be provided in future assaults of similar character and magnitude.

65. Annex (4) gives, in tabular form, a summary of ammunition expended at SAIPAN and total reserves made available at ENIWETOK. (ENIWETOK reserves include ammunition later shipped to objectives in AEs and Cargo Ships).

FIRE SUPPORT LOGISTICS

66. A continuous program of re-fueling, reloading ammunition, disposal of empty cases and replenishment of provisions was maintained throughout the operation. Ammunition re-supply has been previously discussed in some detail. The other logistic operations were conducted by the Screen Commander and by CTF 52. CTF 52 arranged for and made facilities available, and the Screen Commander arranged for relief from screening assignments, fire support assignments, patrols, etc.

67. The Screen Commander (Commander Destroyer Squadron 56, relieved occasionally by Commander Destroyer Squadron 53) deserves much credit for the able manner in which he apportioned the available destroyers to meet the many tasks required.

LIAISON OFFICERS

68. Divisional and Corps Naval Gunfire Liaison Officers did excellent service in coordinating the activities of Shore Fire Control Parties. During the first two days, prior to the establishment of rear echelons of command ashore, requests for fire support ships were submitted directly by Regimental Liaison Officers, who, naturally, had no way of comparing the urgency of their needs with those of other regiments. It was

difficult to arrive at proper priorities when all requests could not be met. Coordination of requests was taken over by the Division Liaison Officers for units under their command, and later by the Naval Gunfire Officer, Northern Troops and Landing Force, for all units, with very successful results.

AIR SPOT

69. Ship's planes were constantly available for observation of ship's gunfire. Cruisers and Battleships employed their own planes to great advantage when firing special deep support missions; and planes were similarly assigned to destroyers for the same purpose.

70. Shore fire control parties did not make use of planes for supplementing their own observation. It is felt that Air Spot would have greatly aided spotters, particularly during the first few days when commanding terrain had not been secured.

71. Shipboard based air spot for shore artillery was also available, but was not requested, as artillery OY planes were able to operate from the CHARAN-KANOA Air Strip almost as soon as the artillery was established ashore.

COMBAT INFORMATION

72. Front line data was accurately submitted by all Shore Fire Control Parties upon request, and was of great value in establishing safety lines and preventing inadvertent fire into adjacent units. Firing ships, however, rarely had up-to-date front line data available and apparently made little effort to secure it. Many instances of star shell cases falling within our lines were reported, which probably would not have occured if the firing ships had been more attentive to securing and maintaining complete information of troop locations. Accurate information is particularly important to firing ships using direct fire at targets of opportunity, In this connection, it should be a prime consideration for Shore Fire Control Parties to see that their ship has such data.

73. Several instances were reported of incorrect spotting due to the spotter's failure to determine the ship-target line. It has been suggested that present standard proceedure be amended to provide for this information being automatically given by the ship when commencing fire on each new target. Present doctrines, of course, in no way prevent such procedure.

74. Much information of front lines, enemy activities, strong points, etc., was secured via Fire Control circuits considerably prior to receipt of the same information via the usual command channels. This information was of great value to Troop Headquarters Afloat.

MAPS

75. The special grid system previously mentioned proved highly successful because of its simplicity and the logical manner in which it was developed from the standard grid system. Grid coordinates were used on very few occasions. An additional advantage of the system was discovered during the operatiom when a copy of the special target Map was captured by the enemy. Thereafter, all target numbers were "shackled" using the prescribed shackle code for the day. Target numbers lent themselves to "shackling" with much greater ease than would have been the case with grid coordinates.

COMMUNICATIONS

76. The communications plan prescribed by Annex D to CentCom TWO functioned in excellent fashion. Frequencies, in general, were well selected and properly spaced. All circuits were bothered at times by CW interference, the source of which was never accurately dtermined. Air Support communications frequently were heard on fire support frequencies - due probably to faulty calibration. In such cases, where interference was persistent, Shore Fire Control Parties were assigned a substitute frequency.

77. Some trouble was experienced on the Headquarters Ship itself. It was found that transmitting on Shore Fire Control Frequency 3135 completely blocked out the ship's TBS receiver. Similarly, transmitting on Shore Fire Control Frequency 3865 blocked-out the receiver on the naval gunfire control net (3845) and vice versa. It is believed that both instances were the result of antenna proximity - a difficult problem on a ship with so many receivers and transmitters. Consequently, both 3135 and 3865 were discarded and replaced by other frequencies from the surplus which was fortunately available.

GENERAL EFFECT OF GUNFIRE AND AIR BOMBARDMENT

78. Many enemy installations were in caves and dugouts which presented poor targets for naval gunfire. However, many emplacements were shelled and destroyed regardless of ammunition expenditures. Effective and extensive use was made of

air bursts against troops in the open, when ships were careful to keep them LOW. All types of fire, even when failing of destruction, was of value in forcing the enemy to abandon natural defensive positions, in stripping off camouflage, in keeping the enemy in caves and ravines and preventing movement.

79. The disruption of communications by naval gunfire and field artillery was a major factor in the final enemy demoralization. Similar chaos was created in enemy supplies. Many small scattered dumps were destroyed and use of normal routes was denied the enemy.

80. Cane fields and brush afforded the enemy valuable concealment. Cane was burned with reasonable success by White Phosphorus projectiles. Some similar success was reported from the use of star shells burst at a low height, and from 40mm. As none of these were completely effective in burning brush, jettisonable gas tanks filled with a mixture of napalm and gasoline which was highly effective, were dropped.

81. Beside the usual destructive effects of bombs, aircraft rockets contributed to the air bombardment effort. Aircraft rockets were of great value in hitting small targets such as tanks. Movement of tanks was observed from the air and tank counter-attacks broken up with rockets.

82. A concise summary of the effect of Naval Gunfire (although exaggerated) is found in the following extract from a captured message transmitted by enemy headquarters on SAIPAN:

> "...The practical experience of the defense forces of SAIPAN in this battle lasting over half a month lay in the power of the enemy naval bombardment. If there just were no naval gunfire, we feel we could fight it out with the enemy in a decisive battle...."

TINIAN HARASSMENT

83. During the operation against SAIPAN, counter battery and harassing fire were delivered at TINIAN. The inclusion of TINIAN in the Dog minus TWO, Dog minus ONE and Dog Day bombardment plans has already been mentioned. TINIAN was also continuously patrolled to prevent enemy escape by water. One destroyer was stationed nightly in the SAIPAN Channel with the dual mission of counter battery against shore batteries on TINIAN and harassment of the North TINIAN airfield to deny it to enemy planes during all alert periods. TINIAN TOWN and SUNHARON

HARBOR were harassed nightly by vessels from the southern portion of the transports screen. The ships designated for this task also performed the task of harassing the GURGUAN POINT (central) Air Field during alert periods. Air bombardment was carried on daily.

84. Due to the shortage of destroyers, the last mentioned task of harassing and bombarding TINIAN TOWN was generally assigned to DEs, APDs, AMs, and DMSs. These vessels apparently welcomed the change from the usual monotony of screening assignments, and uniformly performed their tasks in an admirable and enthusiastic manner.

TINIAN BOMBARDMENT

85. Commencing on Dog plus ELEVEN (26 June 1944) a program was instituted for "softening" the defenses of TINIAN. This program was coordinated with Support Air and with shore based artillery. The general plan provided for dividing the island into a north and a south half. Air and Naval gunfire alternated daily, working first in one half and then the other. A target map was maintained, information exchanged and new targets posted as previously described. It was the intention to level all inhabited areas and destroy all known defenses. The BIRMINGHAM, MONTPELIER and INDIANAPOLIS were given these assignments and directed to use both air and direct spot. All three ships were extremely conscientious in carrying out their tasks and developed many additonal targets through their own observation.

86. Results were not as complete as desired due to several factors:

(a) The fact that most defenses were dug in and impossible to destroy without securing direct hits, which, in turn, required an exorbitant ammunition expenditure.

(b) The fact that Cruiser guns (and Naval bombardment in general) are ideally suited for area bombardment and anti-personnel work. Dispersion, gun wear and limited ammunition supply operate to their disadvantage against point targets.

RECOMMENDATIONS

87. That high capacity projectiles have a base fuze with greater delay (.010 to .025 seconds).

88. That the majority of high capacity projectiles be fitted with steel nose plugs. That the point detonating fuze be used only:

(a) For general bombardment of areas containing buildings, hangers, barracks, trenches, personnel, etc.

(b) To remove camouflage from gun positions and beach defenses.

89. That armor piercing and common projectiles be reserved for point blank fire, at the most rugged and massive types of structures, not penetrable by high capacity projectiles.

90. That the use of LCI gunboats be continued. Twelve per assault division is considered about the right number. The armament and crew is correct but the 40mm guns should be provided with a better sight.

91. That four observation planes per cruiser be provided on all heavy and light cruisers. That 25% spare planes be provided in advance area. Four planes were lost in FORAGER from 28 in use. Others were sufficiently damaged to be in need of replacement.

92. It is strongly recommended that complicated coordination of gunfire and bombing by flares or other signals be avoided.

93. That main reliance be placed on napalm - gasoline bombs for incendiary purposes. That WP projectiles be used only for ignition of the most readily inflammable materials, for smoke screens and for anti-personnel use in confined spaces.

94. That special efforts be made to strip camouflage, natural and artificial, from enemy batteries. This may be done by large caliber HC with P.D. fuzes and possibly by napalm bombs, laid in likely sites.

95. That ships' batteries be employed to knock out point targets of only the most important and menacing character. Otherwise enormous ammunition expenditures are incurred.

96. That the use of experienced artillery observers (Army or Marine Officers) as spotters in VOS and VSO planes be continued and extended.

97. That the maximum number of destroyers, assigned for call fires, be furnished an additional voice transmitter in order that they may transmit on the gunfire control frequency while working with shore fire control parties.

98. That assignment of ships to call fires be to the Regimental Naval Liaison Officer and not to Battalion Shore Fire Control Parties. (not over two per regiment should be needed except in exceptional cases). The Regimental NLO can then assign ships to battalions on a basis of need and can instantly meet changing conditions by reassignment.

99. That 4.2 inch chemical mortars be used when possible, preferably mounted in craft that can propel themselves to the objective.

100. That basic training of ships and shore fire control parties at KAHOOLAWE be intensified and that the necessary permanent organization to do this be ensured.

101. That fire support ships be loaded with 50 illuminating rounds per gun and that sufficient reserves be provided to allow an average expenditure of 150 stars per assault division per day of expected combat.

102. That radar beacons be utilized to the fullest practicable extent for call fires.

103. That efforts be continued to solve the re-servicing problem for Battleship and Cruiser-based planes during the assault along the following lines:

(a) Tenders (AVD)

(b) Ships best able to do so reservicing planes of vessels engaged in close support.

104. That plans be made for supplying the maximum amount of reserve ammunition at the objective in assault ships and one or two AE's at a time. These AE's should be experienced, stowed for rapid discharge, equipped with the fastest handling gear available, carry camels and plenty of fenders, and have stevedore crews attached while in combat areas.

[redacted]

ENCLOSURE (F)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

ANNEXES

1. Chronologic Summary of Fire Support.
2. Fire Support Dispositions in Close Support of Dog Day Landings.
3. Ammunition Resupply at Objectives.
4. Ammunition Summary.

[redacted]

ANNEX (1) TO ENCLOSURE (F)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

CHRONOLOGIC SUMMARY OF FIRE SUPPORT

All Times and Dates Zone minus 10

13 JUNE

Bombardment by fast Battleships and Carriers of Task Force 58.

14 JUNE

0540 - 1840 - Bombardment of SAIPAN and TINIAN by all Fire Support ships of Task Force 52 and Task Force 53 as per schedule of fires, Appendix 2, Annex (C) to CTF 52 Attack Order All-44.

0830 - 1125 - Close support of Beach Reconnaissance off CHARAN-KANOA and TANAPAG.

BRAINE (DD) hit by 4.7 inch enemy shell from vicinity of TINIAN TOWN.

CALIFORNIA (OBB) hit by mortar shell from vicinity of AFETNA POINT.

15 JUNE

Dawn - 0730 - Bombardment of SAIPAN and TINIAN as per schedule of fires, Appendix 4, Annex (C) to CTF 52 Attack Order All-44.

0730 - 0900 - Commenced scheduled close support of landing under control CTG 52.2 (Rear Admiral HILL).

0900 - 0945 - Fire support ships fired at targets of opportunity and counter battery while awaiting contact with Shore Fire Control Parties.

1900 - 2400 - CTG 52.2 controlled gunfire after CTF 52 retired for night. Illumination, counter battery, harassing and supporting fire maintained under control of SFC Parties.

Direct Support Assignments

1/6 Mar MONSSEN - McGOWAN
2/6 Mar CALIFORNIA - McGOWAN
3/6 Mar HALSEY POWELL - McDERMUT

15 JUNE (Cont'd)

1/8 Mar	A.W. GRANT
2/8 Mar	BIRMINGHAM
3/8 Mar	COGHLAN - McNAIR - LOUISVILLE - PHELPS
1/23 Mar	REMEY - CLEVELAND
2/23 Mar	ROBINSON - YARNELL
3/23 Mar	NORMAN SCOTT - TWINING
1/25 Mar	TENNESSEE - BIRMINGHAM - SELFRIDGE
2/25 Mar	BAILEY - MONTPELIER
3/25 Mar	WADLEIGH

16 JUNE

Direct Support Assignments

1/6 Mar	McNAIR, McDERMUT, HALSEY POWELL, LOUISVILLE, MELVIN.
3/6 Mar	McGOWAN - MARYLAND - HALSEY POWELL
1/8 Mar	ROBINSON
2/8 Mar	BIRMINGHAM
3/8 Mar	YARNELL - INDIANAPOLIS - MONSSEN
1/23 Mar	MONTPELIER - A.W. GRANT
2/23 Mar	A.W. GRANT - REMEY
1/25 Mar	CLEVELAND - MONTPELIER
2/25 Mar	TENNESSEE - YARNELL
3/25 Mar	STOCKHAM
3/24 Mar	BAILEY - CLEVELAND
2ndSepBn	A.W. GRANT
3/2 Mar	McGOWAN

Special Missions

COLORADO and CONYNGHAM fired special bombardments south of GARAPAN TOWN to prevent enemy reserves from moving to landing beach area.

Ammunition re-supply commenced at 0800. MONSSEN, LOUISVILLE, INDIANAPOLIS, COGHLAN, ROBINSON, BAILEY and HALSEY POWELL loaded from reserves in assault shipping. Thereafter refueling and reloading continued daily.

CTG 52.2 again controlled gunfire during night.

17 JUNE

Direct Support Assignments

2/2 Mar	BAILEY - SIGOURNEY
3/2 Mar	BIRMINGHAM, LOUISVILLE, MONSSEN, MELVIN, McGOWAN, CONY

17 JUNE (Cont'd)

1/6 Mar	ROBINSON - PHELPS - REMEY
3/6 Mar	PHILIP
1/8 Mar	MARYLAND - SHAW
2/8 Mar	COLORADO - HALSEY POWELL - MELVIN
3/8 Mar	PHELPS - NEWCOMB
1/23 Mar	GRANT - ROBINSON
2/23 Mar	COGHLAN - LOUISVILLE - PRINGLE
1/24 Mar	CLEVELAND - SAUFLEY - MERTZ
2/24 Mar	WADLEIGH - LOUISVILLE - BAILEY - WALLER
3/24 Mar	MONTPELIER - REMEY - NORMAN SCOTT
2/25 Mar	WALLER - SAUFLEY
3/25 Mar	YARNELL - PRINGLE
1/105 Inf	WADLEIGH
1/165 Inf	PRITCHETT - LOUISVILLE
3/165 Inf	NORMAN SCOTT

Many changes were made in assignments due to heavy demands for illumination during the night, and to the ammunition reloading program. Heavy inroads made by Dog Day fires were adjusted by transferring star shells from Battleships and Cruisers, and AAC from Battleships and assault shipping.

0111 - PHELPS moved in close to reef and delivered 40mm fire at counter attack near beach.

0347 - MONSSEN attacked surfaced enemy submarine near AGINGAN POINT.

18 JUNE

Direct Support

2/2 Mar	SHAW
3/2 Mar	CONY - MARYLAND - SHAW
1/6 Mar	SHAW - CONY
3/6 Mar	CONY - PHELPS
2,3/8 Mar	PHILIP
1;2/23 Mar	WALLER - SAUFLEY
1;2/24 Mar	SAUFLEY - PRINGLE
2;3/25 Mar	PRINGLE - WALLER
1,3/165 Inf	LOUISVILLE

18 JUNE (Cont'd)

Special Missions

PHELPS received 2 hits from enemy battery in vicinity of GARAPAN and took guns under fire.

MARYLAND took same guns under fire and silenced them.

PRINGLE and WALLER dispatched to MAGICIENNE BAY to help repel enemy tank attack. Shore batteries forced them to remain 8-10,000 yards offshore.

19 JUNE

Direct Support

3/2 Mar	PHELPS
1/6 Mar	CONY - NORMAN SCOTT
3/6 Mar	CONY - COLORADO - NORMAN SCOTT
All/8 Mar	PHILIP -- MERTZ
1/23 Mar	BIRMINGHAM - NORMAN SCOTT
2/23 Mar	WALLER
1/24 Mar	WALLER
1,2/25 Mar	WALLER - PRINGLE
1/105 Inf	SHAW - SAUFLEY - WADLEIGH
3/105 Inf	LOUISVILLE - WADLEIGH
1/165 Inf	LOUISVILLE
2,3/165 Inf	PRINGLE

Special Missions

Amphibious counter attack expected from TINIAN during night. PRINGLE, SAUFLEY, WADLEIGH, and NORMAN SCOTT all stationed near SAIPAN Channel with orders to intercept and destroy enemy craft.

SAUFLEY harassed TINIAN Airfield and barges in SUNHARON HARBOR during night.

PHILIP bombarded craft in TANAPAG HARBOR.

20 JUNE

Direct Support

2/2 Mar	NORMAN SCOTT
3/2 Mar	PHELPS - MERTZ

20 JUNE (Cont'd)

1;3/6 Mar	NORMAN SCOTT
1;2,3/8 Mar	MERTZ
1,2/24 Mar	SAUFLEY - EATON
3/25 Mar	CONWAY
1/105 Inf	WADLEIGH - CONWAY
3/105 Inf	PRINGLE
1/165 Inf	RENSHAW - WADLEIGH
2,3/165 Inf	WADLEIGH - CONWAY - RENSHAW

Special Missions

WADLEIGH harassed TINIAN Airfield and barges in SUNHARON HARBOR during night.

21 JUNE

Direct Support

3/2 Mar	PHELPS - TENNESSEE
3/6 Mar	TENNESSEE
2;3/8 Mar	MERTZ
1;2/24 Mar	EATON
2,3/25 Mar	CONWAY
2/105 Inf	PHILIP - SAUFLEY
3/105 Inf	SHAW - McGOWAN

Special Missions

CALIFORNIA, using air spot, fired at targets of opportunity in Northern SAIPAN. Worked up East Coast during morning and West Coast during afternoon.

PHELPS bombarded TANAPAG Harbor during morning and reported destruction of numerous small craft and several gun positions.

During morning PHELPS and NORMAN SCOTT, using air spot, fired special missions throughout Northern SAIPAN.

22 JUNE

Direct Support

2ndSepBn	SHAW
3/2 Mar	WALLER - PRITCHETT

22 JUNE (Cont'd)

1;3/6 Mar	COLORADO - MELVIN - EDWARDS
1;2,3/8 Mar	MARYLAND - CASSIN YOUNG - SHAW
1,2/23 Mar	PHILIP
1/24 Mar	MERTZ - RENSHAW
2/24 Mar	NORMAN SCOTT - RENSHAW
1/25 Mar	BRYANT
2/25 Mar	PRITCHETT - BRYANT
3/25 Mar	REMEY
2/105 Inf	WADLEIGH - EATON
3/105 Inf	LOUISVILLE - CONY

Special Missions

During night COLORADO fired 20 rounds 16" HC at North TINIAN Airfield.

MARYLAND hit by torpedo at 1955. Departed for ENIWETOK.

23 JUNE

Direct Support

2ndSepBn	CASSIN YOUNG - HALSEY POWELL
1/2 Mar	HALSEY POWELL
3/2 Mar	PRITCHETT - NEWCOMB - HALSEY POWELL
1;3/6 Mar	EDWARDS - CASSIN YOUNG
2,3/8 Mar	SHAW - CASSIN YOUNG
1/23 Mar	MELVIN
2;3/23 Mar	RENSHAW - PHILIP - MELVIN
1;2/24 Mar	RENSHAW - PHILIP - MELVIN - EATON
1,3/25 Mar	BRYANT
2/105 Inf	EATON - BAILEY
3/105 Inf	CONY - BAILEY
1/165 Inf	IRWIN - McDERMUT
2/165 Inf	McNAIR - McDERMUT

Special Missions

EATON and CONY shelled North TINIAN Airfield at dawn.

LOUISVILLE, using own air spot, fired at special targets in North Sector of SAIPAN.

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

23 JUNE (Cont'd)

PRITCHETT bombarded northern TINIAN Airfield, destroying planes on the ground.

RENSHAW and IRWIN patrolled the SAIPAN Channel and stood by for counter battery on TINIAN.

TINIAN TOWN harassed by GILMER (APD) and CLEMSON (APD) during the night.

24 JUNE

Direct Support

1;3/6 Mar	LOUISVILLE
1;3/8 Mar	LOUISVILLE
2;3/23 Mar	WADLEIGH - RENSHAW
1,3/24 Mar	PRITCHETT - RENSHAW
2/105 Inf	BAILEY - PRINGLE
2,3/106 Inf	H.L. EDWARDS - REMEY
1/165 Inf	REMEY - McDERMUT - IRWIN
2,3/165 Inf	IRWIN

Special Missions

LOUISVILLE fired at specially designated targets in and near GARAPAN.

COLORADO bombarded all TINIAN air fields to render them unusable.

PRITCHETT destroyed one enemy plane on Northern TINIAN airfield.

STRINGHAM (APD) and TISDALE (DE) harassed TINIAN TOWN during the night.

25 JUNE

Direct Support

1;3/2 Mar	STOCKHAM - TWINING
1;3/6 Mar	LOUISVILLE - CLEVELAND
1,3/8 Mar	LOUISVILLE - CLEVELAND
2/23 Mar	RENSHAW - BENNION - SIGOURNEY
1/24 Mar	RENSHAW - BENNION - SIGOURNEY
2/105 Inf	PRINGLE - YARNELL - PATTERSON

25 JUNE (Cont'd)

1;2/106 Inf SIGOURNEY
1,2,3/165 Inf IRWIN - REMEY - MONSSEN - CONYNGHAM

Special Missions

CLEVELAND fired at special targets in the vicinity of GARAPAN and MUTCHO POINT as designated by HQ NTLF.

YARNELL and McNAIR patrolled SAIPAN Channel and stood-by for counter battery fire against TINIAN guns.

Enemy barges attempted to leave TANAPAG HARBOR and were engaged by 40mm fire from patrolling LCIs. None escaped but some damage was inflicted on LCIs by returned fire.

ELDEN(DE) and BANCROFT harassed TINIAN DOWN during the night. Enemy barges were discovered attempting to leave SUNHARON HARBOR. Escape was prevented by shelling.

26 JUNE

Direct Support

1;3/2 Mar	STOCKHAM - MONSSEN - WADLEIGH
1,2,3/6 Mar	CLEVELAND - BIRMINGHAM
1/8 Mar	BAGLEY
2/8 Mar	BENNION - IRWIN
3/8 Mar	BAGLEY - IRWIN
2ndSepBn	BENNION
2/105 Inf	PATTERSON - McNAIR - SELFRIDGE
1/106 Inf	MUGFORD
1/165 Inf	PRINGLE
2,3/165 Inf	CONYNGHAM

Special Missions

PHILIP located and fired at enemy gun emplaced on MARPI POINT cliff.

McNAIR unsuccessfully employed white phosphorus to burn brush on NAFUTAN POINT.

BIRMINGHAM commenced systematic bombardment of Southern half of TINIAN.

Direct Support

1;3/2 Mar	WADLEIGH - PHILIP - MONTPELIER
1,3/6 Mar	MUGFORD - YARNELL
1/8 Mar	STOCKHAM
2,3/8 Mar	IRWIN - CLEVELAND - STOCKHAM
1/105 Inf	PRINGLE (SIGOURNEY)
2/105 Inf	SELFRIDGE - HALSEY POWELL
2;3/165 Inf	IRWIN - McNAIR
1,2,3/165 Inf	PRINGLE - SIGOURNEY

Special Missions

Enemy activity was suspected in TANAPAG HARBOR during the early morning. The area was illuminated and taken under observation by LCIs.

All ground troops made a coordinated dawn attack. Fire support ships were in positions for supporting fire prior to dawn and fired a prearranged 30 minute preparation. Cruisers, MONTPELIER and CLEVELAND were withdrawn from retirement dispositions for this purpose.

MONTPELIER worked with own air spot at special targets designated by HQ 4th MarDiv. During afternoon CLEVELAND, using air spot, fired special missions developed by NTLF Intelligence.

PHILIP fired at enemy coast guns located in area 654 on TINIAN. Reported an explosion after a direct hit but could not determine extent of destruction.

MONTPELIER systematically bombarded northern half of TINIAN. Reported several fires started and a number of guns put out of commission.

During the night -- PHILIP and REMEY covered SAIPAN Channel to prevent enemy movement and counter battery against TINIAN. TINIAN TOWN was harassed by SAUFLEY.

Direct Support

1;3/2 Mar	MONTPELIER - LOUISVILLE
1,3/6 Mar	YARNELL - MONSSEN

28 JUNE (Cont'd)

2/6 Mar	MONSSEN
1;2;3/8 Mar	STOCKHAM - TWINING
1,2,3/23 Mar	McNAIR
1/105 Inf	SIGOURNEY - MELVIN
2/105 Inf	HALSEY POWELL
1,3/106 Inf	McNAIR - TWINING - MELVIN
2/165 Inf	McNAIR
3/165 Inf	SIGOURNEY - MELVIN

Special Missions

CLEVELAND, using own air spot, fired at special targets designated by HQ 2nd MarDiv during morning.

CLEVELAND also covered the minesweeping and net laying off the entrance to TANAPAG HARBOR.

BIRMINGHAM bombarded Southern half of TINIAN in continuance of planned bombardment.

IRWIN and RENSHAW patrolled SAIPAN Channel during night.

29 JUNE

Direct Support

1;3/2 Mar	LOUISVILLE - CLEVELAND
1;2/6 Mar	MONSSEN - WADLEIGH
2;3/8 Mar	TWINING - CASSIN YOUNG
2;3/23 Mar	REMEY - SAUFLEY
1,3/24 Mar	SELFRIDGE
1/105 Inf	RENSHAW
1,3/165 Inf	RENSHAW

Special Missions

Channel Patrol and Counter Battery - YARNELL - PHILIP

TINIAN Harassment - STRINGHAM (APD)

The INDIANAPOLIS expended 300 rounds 8" and 500 rounds 5" on TINIAN TOWN directed at complete destruction of the town and its defenses.

29 JUNE (Cont'd)

MONTPELIER continued the planned bombardment of the Northern half of TINIAN, expending 600 rounds 6" and 600 rounds 5".

LOUISVILLE fired at specially designated targets on SAIPAN and registered hits on two gun emplacements. One observation plane was damaged by AA fire.

CLEVELAND covered minesweeping and net laying off the entrance to TANAPAG HARBOR.

30 JUNE

Direct Support

1;3/2 Mar	CLEVELAND - BIRMINGHAM
1;3/6 Mar	WADLEIGH - McNAIR
1,2,3/8 Mar	CASSIN YOUNG - YARNELL
1/105 Inf	MUGFORD - STOCKHAM
2;3/23 Mar	SIGOURNEY
1,2/106 Inf	MUGFORD - BAGLEY
1/165 Inf	MUGFORD - STOCKHAM
3/165 Inf	SIGOURNEY

Special Missions

LOUISVILLE and INDIANAPOLIS fired a total of 1100 rounds main batteries and 1000 rounds secondary batteries at heavy defensive installations in the TANAPAG HARBOR area. Targets fired were designated by Commander, Northern Troops and Landing Force.

BIRMINGHAM continued TINIAN bombardment and fired at targets throughout the Southern portions. TINIAN TOWN reported largely in ruins.

TINIAN TOWN was harassed during night by GILMER (APD).

1 JULY

Direct Support

1-3/2 Mar	LOUISVILLE - HALSEY POWELL - SELFRIDGE - WADLEIGH
1;3/6 Mar	McNAIR - LOUISVILLE
1;2,3/8 Mar	BAGLEY - YARNELL - PATTERSON
2;3/23 Mar	SIGOURNEY - RENSHAW
1,2/106 Inf	BAGLEY - STOCKHAM - SAUFLEY

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

1 JULY (Cont'd)

1,3/24 Mar	H.L. EDWARDS
2/24 Mar	SAUFLEY
1/165 Inf	SAUFLEY
2/165 Inf	STOCKHAM - SAUFLEY

Special Missions

Channel Patrol - REMEY

TINIAN Harassment - CHANDLER (APD)

BENNION fired special deep support missions up valleys at East side of SAIPAN using air spot from INDIANAPOLIS. Reported extremely good effect on troops and emplacements. Expended 900 rounds.

MONTPELIER and BIRMINGHAM continued systematic bombardment of TANAPAG HARBOR and defenses along the West shore.

2 JULY

Direct Support

1,3/2 Mar	WADLEIGH - PRITCHETT
1,3/6 Mar	LOUISVILLE - CLEVELAND
1,2,3/8 Mar	PATTERSON - MELVIN - PRINGLE
1/105 Inf	SHAW
1,2/106 Inf	SAUFLEY - SHAW
1/165 Inf	SAUFLEY - SHAW
3/165 Inf	RENSHAW - SAUFLEY - SHAW - McNAIR
1/23 Mar	RENSHAW - EDWARDS - McNAIR
2,3/23 Mar	RENSHAW - EDWARDS
1,2/24 Mar	SAUFLEY

Special Assignments

Channel Patrol - MELVIN
TINIAN Harassment - STRINGHAM (APD)

MONTPELIER continued bombardment of North half of TINIAN. Known defenses began to show coverage by combined air, naval gunfire and field artillery.

REMEY, using air spot from INDIANAPOLIS, fired at targets on East shores of TINIAN. Reported hits on a number of installations.

2 JULY (Cont'd)

BIRMINGHAM and CLEVELAND continued the bombardment of TANAPAG HARBOR Area and Northwestern coast line.

3 JULY

Direct Support

1;3/2 Mar	PRITCHETT - MUGFORD - MONTPELIER
1;3/6 Mar	CLEVELAND - TWINING - SELFRIDGE - MONTPELIER
1,2,3/8 Mar	PRINGLE - MONTPELIER
1/23 Mar	McNAIR - NORMAN SCOTT
2/23 Mar	H.L. EDWARDS - BAGLEY
3/23 Mar	H.L. EDWARDS - BAGLEY
1/24 Mar	McNAIR - NORMAN SCOTT - BRYANT - SELFRIDGE
3/25 Mar	BRYANT - SELFRIDGE
1/105 Inf	SHAW - MUGFORD
1,2/106 Inf	SHAW - MUGFORD
1/165 Inf	SHAW
3/165 Inf	McNAIR - SHAW - STOCKHAM - MUGFORD

Special Missions

SAIPAN Channel Patrol - CONYNGHAM
TINIAN Harassment - GILMER (APD)

The CLEVELAND, using own air spot, delivered deep support from 0730 to 1000 at enemy concentrations and installations lying on the West side of SAIPAN and North of the 30 East - West grid line. The BRYANT, using an INDIANAPOLIS plane, conducted a similar deep support program on the East side of the island.

MONTPELIER continued planned bombardment of Northern half of TINIAN.

4 JULY

Direct Support

1;3/2 Mar	MONTPELIER
1;2;3/6 Mar	MONTPELIER
1,2,3/8 Mar	MONTPELIER

4 JULY (Cont'd)

1,3/23 Mar	BAGLEY - YARNELL
2/23 Mar	CONYNGHAM - PHILIP - YARNELL
1/24 Mar	SELFRIDGE
2/24 Mar	BIRMINGHAM
3/24 Mar	CONYNGHAM - MONTPELIER - BIRMINGHAM
1/25 Mar	PHILIP
3/25 Mar	CONYNGHAM - MONTPELIER - HALSEY POWELL - BIRMINGHAM
2,3/105 Inf	HALSEY POWELL
1,2/106 Inf	MUGFORD
3/165 Inf	MUGFORD - NEWCOMB - HALSEY POWELL - BIRMINGHAM

Special Missions

Channel Patrol - SAUFLEY

TINIAN Harassment - W.C. MILLER (DE)

CLEVELAND fired at specially selected deep supporting targets on the Western side of the island, using her own air spot. The STOCKHAM using air spot from the BIRMINGHAM, fired at similar targets on the Eastern slopes.

After completion of special missions the CLEVELAND and the STOCKHAM acted as "snipers" engaging targets of opportunity beyond our lines. The STOCKHAM was relieved at this task by the BENHAM at 1430, and the CLEVELAND by the BIRMINGHAM at 1530. BIRMINGHAM fired at and destroyed an enemy 3" dual purpose battery located near MARPI POINT. The BENHAM continued harassing fires throughout the night.

During the afternoon the MONTPELIER observed enemy troops concentrated along the shore near MAKUNSHA POINT. She closed the range and fired her 40mm battery into them with effective results.

5 JULY

Direct Support

2,3/105 Inf	HALSEY POWELL - SIGOURNEY
2/165 Inf	LOUISVILLE
3/165 Inf	BIRMINGHAM - LOUISVILLE
1,2,3/23 Mar	YARNELL
1,2,3/24 Mar	BIRMINGHAM - BENHAM - PRITCHETT
1/25 Mar	PHILIP -- WADLEIGH - SAUFLEY
2/25 Mar	MELVIN - SAUFLEY

Special Missions

Channel Patrol - MELVIN

"Sniper" on Eastern side of SAIPAN - PRINGLE

TINIAN Harassment - NOA (APD)

The CLEVELAND fired at special targets on the East Coast during the morning. During the afternoon, she acted as a "sniper" and engaged troop movements and targets of opportunity as detected.

The BENHAM, spotted by an observation plane from the INDIANAPOLIS, performed a similar mission on the West Coast. During the afternoon the BENHAM was relieved by the PHILIP.

The coordinated bombardment and "softening" of TINIAN continued - with the MONTPELIER firing at targets in the northern sector.

6 JULY

Direct Support

1;2,3/105 Inf	SIGOURNEY - GRANT
1;2/23 Mar	LOUISVILLE - CLEVELAND - ROBINSON
1;2/24 Mar	PRITCHETT - EDWARDS
1;2/25 Mar	SAUFLEY - PRINGLE - SHAW - RENSHAW - BAGLEY
1,2,3/105 Inf	SIGOURNEY - GRANT
1/165 Inf	GRANT
2,3/165 Inf	LOUISVILLE - GRANT

Special Missions

Sniper Ships on SAIPAN - East Coast - BAGLEY
West Coast - ROBINSON

Channel Patrol - BENHAM
TINIAN Harassment - CABANA (DE) and DEEDE (DE).

CLEVELAND fired deep support missions and targets of opportunity on the West Coast of SAIPAN. BENHAM, PRINGLE and WADLEIGH carried out the same tasks on the West Coast.

BIRMINGHAM continued her schedule of bombardment of the Southern portion of TINIAN.

7 JULY

Direct Support

1,3/2 Mar	GRANT - CONY - REMEY
3/6 Mar	CONY
1;2/23 Mar	ROBINSON - REMEY
1,2/24 Mar	EDWARDS - MUGFORD
3/24 Mar	MUGFORD
1/25 Mar	BAGLEY - RENSHAW - PHILIP
2/25 Mar	BAGLEY - RENSHAW - HALSEY POWELL
1,3/105 Inf	GRANT
1;2/106 Inf	CONY
1,2/165 Inf	GRANT - SELFRIDGE

Special Missions

TINIAN Harassment - BARON (DE) and ACREE (DE).

All airfields were harassed throughout the night by the following ships:

GURGUAN POINT - TINIAN - BARON (DE) and ACREE (DE)
USHI POINT - TINIAN - YARNELL
MARPI POINT - SAIPAN - All Fire Support Ships in vicinity

Boats from F.S. ships assisted in evacuating men of the 1 & 2 Bn, 105 Infantry who had been driven out on reef by "Banzai" charge.

8 JULY

Direct Support

1;3/2 Mar	REMEY - GRANT - PRINGLE
1;2/23 Mar	REMEY
1,2,3/24 Mar	MUGFORD - SAUFLEY
1/25 Mar	PHILIP - PHELPS - CONYNGHAM
2/25 Mar	TWINING - CONYNGHAM
3/6 Mar	CONY
1;2/106 Inf	CONY
1,3/165 Inf	SELFRIDGE

Special Missions

Channel Patrol - BENHAM (with special instructions to harass USHI POINT Airfield on TINIAN).

TINIAN HARASSMENT - MANLEY (APD) AND TISDALE (DE).

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

9 JULY

Direct Support

2/23 Mar	EDWARDS
1,3/24 Mar	SAUFLEY
2/24 Mar	SAUFLEY - CONYNGHAM - CONY
1/25 Mar	CONYNGHAM - SAUFLEY - WADLEIGH - STOCKHAM
2/25 Mar	CONYNGHAM
2/2 Mar	EDWARDS - CONY
3/2 Mar	GRANT - PRINGLE - EDWARDS - CONY
8 Mar	HALSEY POWELL

Special Missions

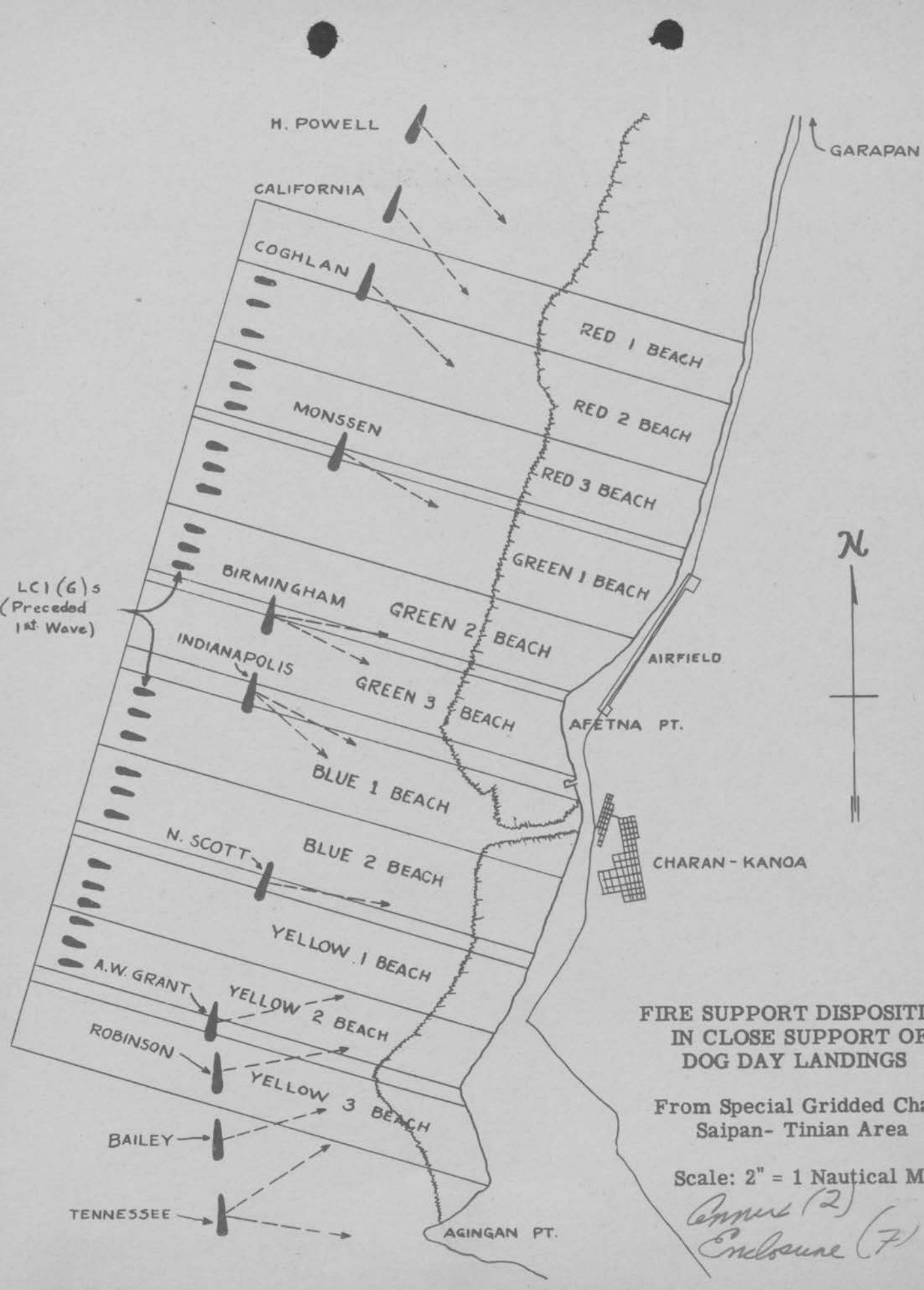
Channel Patrol - RENSHAW
TINIAN Harassment - TISDALE (DE) and CHANDLER (DMS)

RENSHAW observed white lights near YELLOW BEACHES on TINIAN. Investigated without discovering source and fired several salvos into general area.

Island was secured at 1615 - but illumination was maintained throughout the night in view of the considerable numbers of Japanese still remaining in caves.

10 - 11 - 12 JULY

Periodic illumination furnished each night to prevent escape of enemy during final "mop-up" near MARPI POINT.



FIRE SUPPORT DISPOSITIONS IN CLOSE SUPPORT OF DOG DAY LANDINGS

From Special Gridded Chart
Saipan- Tinian Area

Scale: 2" = 1 Nautical Mile

Copies (2)
Enclosure (7)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

Ammunition was supplied at SAIPAN - TINIAN by:

(a) Initial Assault Ships
APAs, AKAs, LSTs, LSDs.

(b) AEs and Cargo Ships
MAZAMA (2 trips)
SHASTA
RAINIER
CAPE TRINITY

(c) Miscellaneous Shipping

Ammunition was supplied at GUAM by:

(a) Initial Assault Ships
APAs, AKAs, LSTs, LSDs.

(b) Cargo Ships
CAPE TRINITY

(c) Miscellaneous Shipping.

Total ammunition of major types transferred at the objective is tabulated below. Depth charges, small arms and miscellaneous types were also available and transferred as needed but they are not included in this summary. Also the table below does not include numerous transfers between fire support ships to keep supplies equalized and transfers from fire support ships leaving the objectives to ships remaining.

[redacted]

ANNEX 3 TO ENCLOSURE (F)

TYPE	SAIPAN - TINIAN Initial Assault Ships	AEs Cargo & Misc.	Total Rds.	Total Tons	GUAM Initial Assault Ships	AEs Cargo & Misc.	Total Rnds	Total Tons	Grand Total Rnds.	Grand Total Tons
16"HC		886	886	1051					886	1051
14"HC		2446	2446	1949					2446	1949
14"AP		36	36	40					36	40
8"HC	1800	6460	8260	1424	3600	1274	4874	829	13134	2253
8"AP		20	20	3					20	3
6"HC	6480	9598	16078	1246	5400	2300	7700	597	23778	1843
6"AP		2900	2900	141					2900	141
5/38AAC	12000	56350	68350	3451	12000	21901	33901	1712	102251	5163
5/38Star		8070	8070	408		4279	4279	216	12349	624
5/38Com		1595	1595	80					1595	80
5/38 WP			1541	78					1541	78
5/51 HC		2900	2900	141					2900	141
5/25AAC		11922	11922	588		2856	2856	140	14778	728
5/25Star		1871	1871	95		1052	1052	53	2923	148
4"5 BR	2700	11374	14074	282	2700	4000	6700	134	20774	416
Rockets				10948				3681		14629
2000#GP		55	55	55					55	55
1000#GP		717	717	359					717	359
1000#SAP		360	360	180					360	180
1000#AP		29	29	15					29	15
500#GP		3975	3975	994					3975	994
350#DB		1374	1374	240					1374	240
250#GP		900	900	113					900	113
100#GP		3284	3284	164					3284	164
100#Inc.CL		400	400	20					400	20
100#Frag.CL		565	565	29		250	250	1	815	30
A/C Rockets		1400	1400	28					1400	28
50 Cal.		1650000	1650000	289					1650000	289
				2522				1		2523

ANNEX (4) TO ENCLOSURE (F)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

AMMUNITION SUMMARY

	Total in OBB,CA, CL,DD	Total Reserve Assault Shipping (TF52&53)	Reserve Requested at Eniwetok (TF52&53)	Reserve Provided at Eniwetok (TF52&53)	Total Reserves	Used Saipan Campaign	Tons Used Saipan	Used GUAM and TINIAN	** Average Call Fires Per Day 28 June to 2 July (Saipan)
16"HC	1336		2560	2700	2700	3768*	3674		
16"AP	748		1280	500	500	50	56		
14"HC	4800		6000	6880	6880	2610	1958		
14"AP	1800		3000	1800	1800	77	58		
8"HC	5400		5400	8500	13900	4670	607		100
8"AP	2430		2700	5500	5500	150	20		15
6"HC	11800	11800	11800	25500	37380	14600	790		700
6"AP	5130		5940	13000	13000	825	54		75
5/51 HC	3400		2600	6000	6000	3000	75		
5/38AAC	109190	24000	53400	145000	169000	114844*	3101		35000
5/38Star	10400		4740	6500	6500	5520	149		230
5/38Com	10000		8000	16000	16000	2205	65		
5/38WP	1400		3160	2400	2400	1722	47		
5/25AAC	23760		13200	24000	24000	11000	278		250
5/25Star	6000		1440	3100	3100	1300	33		20

Will be included in Reports of CTF 52 and CTF 53

TOTAL 10,985 TONS

* Includes 2432 16"HC and 12544 AAC, fired by TF 58, which are not included in figures in Column 2.

** 28 June - 2 July is a representative period because all Fire Support CAs, CLs and DDs of TF 52 were present and were available for fire support missions.

Joint Expeditionary Force (TF 51)
Office of the Commander,
[redacted] MOUNT, Flagship,
[redacted] 1944.

ENCLOSURE (G)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

UNDERWATER DEMOLITION TEAMS

I ORGANIZATION & TRAINING

1. Five underwater Demolition Teams were employed in FORAGER. Numbers FIVE, SIX, and SEVEN were employed at SAIPAN. Numbers THREE, FOUR, and SIX were utilized at GUAM. Numbers FIVE and SEVEN were employed at TINIAN. Each team consisted of approximately SIXTEEN officers and EIGHTY men, all naval personnel except for one Army and one Marine Liaison officer per team. Each Underwater Demolition team was embarked in an APD as follows:

Team No.	APD
3	USS DICKERSON
4	USS KANE (originally TALBOT)
5	USS GILMER
6	USS CLEMSON
7	USS STRINGHAM

2. Nearly all the personnel had received basic training at FORT PIERCE, FLORIDA. Many of Team No. 3 had participated in the MARSHALLS operation as members of Teams Nos. 1 & No. 2. All had rereceived specialized training at the Naval Combat Demolition Training and Experimental Base, KAHAOLE, MAUI, T.H., and its forerunner at WAIMANALO, OAHU, T.H.

II PLANS

3. Plans, though differing in detail at the various objectives provided in general for the following:

(A) Pre-assault reconnaissance, sometimes by stealth at night, but more often in daylight under cover of gunfire. This daylight reconnaissance was made in some instances on beaches where no landings were intended, in order to deceive the enemy.

(B) Pre-assault demolition of underwater obstacles and mines which would hinder the landings, marking of clear lanes and channels, etc.

(C) Guidance of LVT waves and landing craft during the assault.

(D) Post-assault improvement of beaches, blasting of channels across reef's, etc, to facilitate landing of personnel & supplies.

4. While daylight work of this nature in close proximity to enemy beaches might appear prohibitively hazardous if not suicidal, it was believed that strong gunfire support would reduce the risk considerably. Very complete plans were therefore drawn up for this gunfire support and a large proportion of ammunition allocated. In order to achieve some economy, the minesweeping was scheduled at the same time to take advantage of this cover, and the firing was delivered so as to destroy beach defenses & guns.

III EXECUTION

5. Details of execution can be found in reports of the various Team Commanding Officers. The following is of a more general nature.

6. Daylight reconnaissance of SAIPAN and GUAM beaches and night reconnaissance of GUAM & TINIAN beaches were successful. The following types of information were procured & disseminated to all commands concerned before initial landings:

(a) Reef conditions, width, smoothness, slope at edge, etc.

(b) Depths of water, channels, etc.

(c) Surf conditions.

(d) Tide & current.

(e) Obstacles & mines.

(f) Defenses, etc. on beach visible for seaward.

7. Pre-assault demolitions were found to be unnecesary at SAIPAN and TINIAN. At GUAM obstacles were found and removed on 17, 18, 19 & 20 July. These consisted of cribs made of wooden posts lined with chicken wire and filled with coral. Wire cable was stretched between cribs. Barbed wire was found along the beach line but would have been absolutely no hinderance to LVT's had it not been removed. A few anti-boat mines were found at GUAM & removed.

8. Guide work during [illegible] and post-assault improvement of beaches was carried out [illegible].

9. Fire and air support was [illegible] in all cases except on D minus ONE Day at SAIPAN. Here the air support failed to materialize and the fire support was too far inland to prevent enemy sniper and mortar fire. The fire support by LCI gunboats at GUAM is especially noteworthy and must receive much of the credit for the remarkably low casualties there. These gunboats used 40 MM semi-automatic fire over the heads of the swimmers & boats. Each shot was crefully aimed and no case is recorded of our fire injuring any of our men although they worked as close as 50 yards from the beach where the fire was directed.

10. Casualties were extraordinarily light, even at SAIPAN where the swimmers received considerable fire.

Team No.	Killed		Wounded	
	Officers	Enlisted	Officers	Enlisted
3	1	0	0	0
4	1	0	0	0
5	0	1	0	7
6	0	0	0	0
7	0	1	0	8

V CONCLUSIONS & RECOMMENDATIONS

11. Results achieved by Underwater Demolition Teams in FORAGER had a considerable if not decisive (at GUAM) effect on the success of the operations. These results fully justify the extraordinary efforts which have been made to organize, train & equip the Teams, and also indicates that the policies on which the above depend are basically sound. Improvements however can be made (as listed below)

12. Teams now consist mainly of recently recruited Construction Battalion personnel. In the future an effort should be made to obtain men who have served aboard Amphibious ships & craft for at least one year and with combat experience if possible. All should be volunteers of good physique.

13. Certain changes in the composition and equipment of the Teams are desirable. (Covered Separately).

14. Physical condition of the men suffers during close confinement aboard AFD's. Possible remedies are:

(a) Use of DE's (more spacious).

(b) Daily swimming from AFD's underway when seas permit. The AFD could lea[illegible] for this purpose and rejoin within 2 o[illegible]hours.

(c) Sending Teams to an advanced staging area 1 week in advance of Task Force for rehabilitation.

15. Both the APD and each Underwater Demolition Team provides crews for all boats carried. One or the other set of crews should be debarked to reduce congestion.

16. Only boats in the very best condition should be assigned to Underwater Demolition Teams. There is a strong tendency to do the opposite.

17. The senior Underwater Demolition Team Commanding Officer should not be assigned additional duty as Commanding Officer of all the teams. His own team is bound to suffer if he spends the time necessary to supervise the other teams & act as planning and liaison officer with the Task Force Commander, Transport Group Commander & Beachmaster.

18. A mine detector which will function underwater is an urgent and essential requirement.

19. Great care must be exercised that Underwater Demolition Teampersonnel do not suffer in regard to advancement in rating because of their unique assignment.

20. Underwater Demolition Team personnel should be given a rehabilitation period of at least 2 months between operations. Much work in the water under great nervous strain has a very deleterious and lasting effect on many of the men. Long periods of inactivity on the APD's has a bad physical effect on all.

21. Present types of landing boats are not very suitable for Underwater Demolition Team work. The ideal characterisitics, are: shallow draft, low silhouette, good speed & maneuverability, quietness, armored if possible against small arms fire. An experimental boat with these features is being built.

22. There should be close pre-assault liaison & joint planning between the Beachmaster and the Underwater Demolition Teams. This is usually over-looked.

23. Fullest use of the VHF equipment (with SO-13 radar) should be made for:

(a) Night reconnaissance.

(b) Keeping fire support craft in position.

24. Tetrytol should be used exclusively for pre-assault blasting, dynamite for post-assault work.

25. Up to the present we have enjoyed two advantages:

(a) The enemy has not used underwater mines & obstructions to any great extent.

(b) He has not been cognizant of our Underwater Demolition Teams and their methods.

It may be assumed that these advantages will diminish or disappear in future operations. We must assume that he will take vigorous counter measures against Underwater Demolition Team Operations and we must be ever alert to improve our tactics and fire support or these operations will become extremely dangerous & ineffective.

[redacted]

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ENCLOSURE (H)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

PROTECTIVE SMOKE COVER

INDEX

ENCLOSURE (H)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

I. PLANS

OVERALL PLANS

1. Allowances of smoke equipment for ships operating with TF 51 (including TF 52, and TF 53) were established by letter and despatch by CTF 51 early in the planning stages in time to permit ships to be so equipped prior to their departure for the MARIANAS. The "Smoke Equipment Plan", Annex O to CTF 51 OpPlan A10-44, listed these allowances in tabular form and also gave data concerning the characteristics and capabilities of the various types of smoke equipment used. The detailed smoke plans for each objective were prepared by the separate Task Force Commanders.

PHASE I - SAIPAN

2. The Smoke Plan for SAIPAN was prepared by CTF 52 (Vice Admiral TURNER) prior to departing from PEARL, and was published as Annex D to CTF 52 Attack Order A11-44. It made provision for the following:

(a) Planes carrying FS smoke tanks to be on station and prepared to lay smoke during Underwater Demolition Operations.

(b) Fire Support ships to be standing by and prepared to lay smoke screens with WP shells during Underwater Demolition Operations.

(c) Planes and ships to be standing by and prepared, as in (a) and (b), to lay smoke during the landing phase and thereafter if required.

(d) Detailed plans to protect the flanks and front of boat waves, transport unloading areas, and unloading points on the reef from enemy fire by use of smoke pots, floats, and Besler generators.

(e) Detailed plans to maintain a smoke screen in SAIPAN channel and across the Northern tip of TINIAN to prevent enemy artillery on TINIAN from firing on ships in the transport area and the boats in the landing waves.

(f) Use of smoke during minesweeping operations.

(g) Use of smoke during the diversionary mock landing conducted by the Demonstration Group.

(h) Smoke to cover transport areas and anchorages during enemy air attacks (for details see Appendix 2 to Annex D

to CTF 52 Attack Order A11-44).

PHASES II AND III (GUAM AND TINIAN)

3. The detailed smoke plans for GUAM and TINIAN were prepared by CTF 53 (Rear Admiral CONOLLY) and CTF 52 (Rear Admiral HILL) respectively, and in general were similar to the plan for SAIPAN as described in paragraph (2) above but varied somewhat in the detailed methods of execution.

II. EXECUTION AND EFFECT

GENERAL

4. The smoke plan to cover transport areas and anchorages during enemy air attack was the only smoke plan executed at SAIPAN, except that the WADLEIGH fired 87 rounds of 5/38 WP to cover the withdrawal of UDT #7 from BLUE and YELLOW beaches at about 1100 June 14, 1944. No smoke was used at either GUAM or TINIAN.

SUMMARY OF ANCHORAGE SMOKE PLAN
SAIPAN

5. The details of the anchorage Smoke Plan as executed, are briefly listed as follows:

(a) Prior to darkness all available LSTs, LCIs and small craft carrying Besler Generators were equally spaced and anchored on the windward side of the anchorage area.

(b) Transports and other large vessels were assigned anchorages as far as possible within the area covered by the smoke screen formed by the vessels listed in (a) above, and these anchorages were so located that individual ships received the maximum protection from the smoke produced by other large ships in the anchorage area.

(c) One or more boats (LCVP, etc.) equipped with smoke pots and floats, were stationed to windward of each large ship to assist in covering that ship with smoke. These boats were controlled by the individual ships.

(d) When it was necessary to anchor a large ship outside of the screened area described in (a) above, an LCI(G) with Besler generator was assigned to cover that ship. Smoke boats as described in (c), were also used.

(e) When orders were given to "Make Smoke", all ships and boats equipped with smoke, including large ships in the anchorage area, commenced smoking.

(f) The orders to make smoke and stop smoking were passed over all local communication channels.

EXECUTION OF ANCHORAGE SMOKE PLAN

6. The time at which the order "Make Smoke" was given depended upon the distance, speed, and course of the bogies. It must be rembered that after smoking operations were commenced, it required 5 to 15 minutes, depending upon the speed of the wind, to develop a good screen over the anchorage area. Smoking operations were frequently stopped and then resumed during the same alert, when the location of bogies permitted, in order to conserve smoking material. The total time that smoke was made is tabulated below:

Date (Night of)	Total Smoking Time in Minutes
15 June	67
22 June	100
23 June	29
24 June	60
26 June	80
27 June	234
28 June	46
30 June	118
1 July	61
5 July	69
6 July	181
7 July	92

TOTAL - 18 Hours, 57 Minutes

EFFECT OF ANCHORAGE SMOKE PLAN

7. It is certain that smoke operations in the transport area was the greatest factor in the extremely effective defense of the transport area against air attack. During the repeated attacks, although by few enemy planes, bombs were dropped in the vicinity of the transport area, but were obviously dropped blindly. Unsuccessful attempts were also made to drop torpedoes.

8. The screen produced was not always perfect, but it was sufficient to prevent the enemy from selecting a specific target and pressing home the attack even in very bright moonlight. Consequently, the only damage to any ship in the transport area during

smoking operations occurred when the USS MERCURY was hit be a torpedo before the torpedo struck the water. The enemy pilot was so sufficiently confused by the smoke that, after releasing the torpedo, his plane crashed into one of the MERCURY's cargo booms and was destroyed. The torpedo, fortunately, deflagrated but did not detonate. It is doubtful if the enemy pilot saw the USS MERCURY. The MARYLAND was also struck by one torpedo from a lone, low-flying plane, which made an undetected approach while no smoke was being used.

LOGISTICS

9. On approximately 24 June (D/9), it became apparent that additional smoke mixture would be required at SAIPAN if air attacks continued as previously. Consequently, all smoke mixture on board vessels leaving the SAIPAN area was transferred to vessels remaining. Shipments of smoke mixture (including shipment by air) were requested from ENIWETOK, and recommendations made that a supply of 30,000 gallons of fog oil, 3000 pots and 3000 floats be established at ENIWETOK. It was later recommended that these amounts be doubled. At times individual ships expended all smoke mixture on board, and it was necessary to equalize supplies by constantly transferring somke between ships present. The total supply was reduced on several occasions to an amount estimated as sufficient for only 1½ hours of smoking operations. Fortunately, shipments arrived during the critical times, and at no time was the supply insufficient for required smoking operations. The following approximate amounts of smoke equipment were shipped to SAIPAN from ENIWETOK:

By Surface Vessels

65;000 gallons fog oil
4,100 pots and floats

By Air

700 pots and floats

SMOKE MATERIAL EXPENDED

10. Based on an average of 30 ships using Besler generators and 30 ships using pots or floats in small boats, it is estimated that the average expenditure per hour of smoking was:

3000 gallons fog oil
600 pots or floats

Based on the above, the estimated total expenditure at SAIPAN was:

57;000 gallons fog oil
11,400 pots or floats

COMMENTS AND RECOMMENDATIONS

11.

(a) Besler generators proved very effective and produced large quantities of persistant smoke.

(b) Mark 3 smoke pots are more suitable than M1 pots for use in small boats because they produce approximately 2½ times as much smoke in the same given time.

(c) M4 smoke floats are best used by placing them in a line normal to the wind and the windward of the ships to be covered with smoke.

(d) The use of M4 floats as described in (c) is the most effective method of covering an individual ship with smoke through the use of small boats.

(e) In general, Mk 1 and Mk 2 floats are too large for use in small boats.

(f) Mk 3 pots used in the Mk 3 smoke generator are the best substitute for Besler generators.

(g) It is recommended that all AMs, YMSs, PCSs, PCs, SCs, and other small craft able to carry Besler generators, be so equipped while participating in amphibious operations.

(h) It is recommended that during amphibious operations, a reserve supply of at least the following amount of smoke equipment be established at an advanced base near the objective:

60;000 gallons fog oil
9;000 M4 floats
3,000 M1 pots

Based on an average of thirty ships, it is estimated that the above equipment will provide smoke for 20 hours.

[redacted]

JOINT EXPEDITIONARY FORCE (TF51)
OFFICE OF THE COMMANDER
U.S.S. ROCKY MOUNT, FLAGSHIP
25 AUGUST 1944.

Enclosure (I)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION.

REPORT OF COMMANDER SUPPORT AIRCRAFT

UNITED STATES PACIFIC FLEET
COMMANDER SUPPORT AIRCRAFT

CSA/A9/A16-3(8)
Serial: 007

24 August 1944.

[redacted]

From: Commander Support Aircraft, FORAGER (Commander Task Group 51.1).
To : Commander Amphibious Forces, U.S. Pacific Fleet (Commander Task Force 51).

Subject: Report of Support Aircraft Operations, FORAGER,

Reference: (a) Annex "F" of Commander Task Force 51 Operation Plan No. A10-44 (Air Support Plan).

Enclosure: (A) Subject Report.

1. Enclosure (A), Part I, covers the important features of the preparation for and the conduct of Air Operations used for Direct Support Missions in the capture of objectives in the FORAGER Operation. It is understood that a detailed report on the Air Operations for the capture of Guam and Tinian will be included in the report of Commander Task Force 53 and Commander Task Force 52. This report includes a number of recommendations which are considered important in the improvement and development of Support Aircraft for future Amphibious Operations. Part II covers corresponding matters from the standpoint of Support Aircraft Communications.

2. In the interest of brevity, chronological narrative details and composition of forces have been omitted.

R. F. Whitehead

R. F. WHITEHEAD.

ENCLOSURE (A)

REPORT OF COMMANDER SUPPORT AIRCRAFT FORAGER

PART I - OPERATIONS

SUBJECT PAGE

PART II - COMMUNICATIONS

REPORT O[illegible] AIRCRAFT OPERATIONS, FORAGER

[illegible] OPERATIONS

REHEARSAL AND CRITIQUE

1. Rehearsal exercises were held at Maalaea Bay, Maui, and Kahoolawe Island. The Air Plan for these exercises duplicated as nearly as practicable the plan for the Forager Operation, with the exception that live ammunition was used only during the bombardment phase on Kahoolawe Island, the Air Support for the landing exercises at Maalaea Bay, Maui, being simulated. With the exception of some of the CVE's, none of the carriers engaged in the Forager Operations were present for the Rehearsal so it was necessary to use carrier air groups based in the Hawaiian area for the Support Air Operations for these exercises. This plan was thoroughly discussed at a conference attended by all concerned prior to departure for the Rehearsal.

2. This Rehearsal was invaluable to the Support Air Control Parties in giving them an opportunity to improve their teamwork, smooth out communication difficulties, and give a clear understanding of the entire project. These exercises revealed certain weaknesses, and a general conference of Support Air Control Parties personnel and of the Aircraft Squadron Commanders held immediately thereafter resulted in clearing up many matters which were in doubt and an exchange of ideas for the improvement of technique.

3. The Commander Support Aircraft personally briefed all of the carrier pilots engaged in the Forager Operation on the Air Plan and the general scheme of maneuver for the entire operation. Some of these pilots were briefed while in the Hawaiian area while the pilots of Task Force 58 were briefed at Majuro. These conferences and briefings are believed to be essential to the final execution of the Air Plan since they anticipate complications and eliminate misunderstandings that would otherwise require subsequent lengthy radio transmissions.

ADVANCED COMMANDER SUPPORT AIRCRAFT

4. This operation was the first occasion in which the direction of air operations prior to DOG Day was performed by the Commander Support Aircraft. In order to coordinate Air Operations with the Naval Bombardment of the objective and the gunfire support of the Mine Sweeping Operations on DOG-2, DOG-1 Day and for the protection of the Underwater Demolition Teams on DOG-1 Day, an Advanced Commander Support Aircraft, with the necessary Air Support Control Party, was set up in the USS WASHINGTON and USS TENNESSEE for this purpose. The aforementioned Control Parties controlled the air operations in the SAIPAN area on DOG-2 and DOG-1 Days. Control was assumed by the Commander Support Aircraft upon the arrival of the Headquarters Ship (USS ROCKY MOUNT) at the objective on DOG Day.

SUP[illegible] AIRCRAFT/STRIKE GROUPS

5. The nature of air support in this operation was very different from past operations. The size and topography of the terrain, together with the defense system adopted by the enemy required a constant evolution in techniq

It is believed worth while to discuss this subject in some detail since operations in the immediate future will encounter similar problems.

PRE-HOW-HOUR SUPPORT STRIKE GROUPS

6. From dawn until HOW Hour on DOG Day, Naval Gunfire, with the exception of counter-battery fire, was restricted to the beach areas to a depth inland of 1000 yards. Support Aircraft was assigned the mission of neutralizing all inland active enemy guns on SAIPAN and TINIAN and preventing the reinforcement of the landing beach area by attacking enemy troops, vehicles and tanks. Small Air Patrols were assigned definite areas to accomplish this mission. The enemy defense system entirely justified this employment of aircraft. Artillery and mortars, located in the hills behind the beach, had been registered on the reef and landing beach and caused a considerable number of casualties. It is believed that properly trained pilots with the proper weapons are the most effective means of neutralizing this type of enemy fire.

SCHEDULED STRIKES

7. The Pre-HOW Hour Strike, consisting of 60VF, 51 VSB and 54 VTB, commenced on schedule at 0700 and was completed at 0727, at which time Naval Gunfire was resumed. This strike was made on previously assigned targets, principally along the landing beaches. Since this strike is primarily an area bombing attack, its principal effect is demoralization of the enemy rather than knocking out specific defense installations. For this reason, this type of attack should be as close to the actual landing time as possible and should be executed simultaneously with Naval Gunfire.

8. Prior to HOW Hour, with the exception of the scheduled HOW Hour Strike, the selection of targets was left almost entirely in the hands of the Air Coordinator and the Flight Leader. Small groups of planes, under the command of their respective Flight Leaders were detached from the Direct Support Groups and directed to patrol definite areas on SAIPAN and TINIAN with instructions to attack active enemy guns, troops, tanks and other targets of opportunity. This plan worked with a large degree of success in that it definitely prevented the enemy from reinforcing the beaches, destroyed trucks and several tanks attempting to approach the landing Area and allowed a large part of the available aircraft to effectively operate independently without further communications from Commander Support Aircraft during a period when the communications facilities are taxed to the limit. This same plan was used effectively after HOW Hour, with the exception that no aircraft were allowed to make attacks in the general area where our troops were operating without specific instructions from Commander Support Aircraft.

Although these patrols were by no means completely effective in silencing enemy artillery and mortars, a considerable number were definitely destroyed and others were silenced by forcing the personnel to keep under cover. Patrols should be small maneuverable groups of about 4VF and 2 or 3 Rocket-equipped VT, flown by pilots especially trained in picking out enemy guns, troops concentrations and other defense installations.

9. After HOW Hour, information on suitable air targets came from two general sources. First, the Air Liaison Officers and secondly, from various sources such as Air co-ordinator, Air Observers, Artillery Spotters, prisoners of war and other Intelligence Information. There was rarely a period up until the last few days of the campaign, when there were not more than sufficient good air targets.

10. Where definite targets are available, experience in this operation has conclusively demonstrated that small numbers of aircraft, making careful and deliverate attacks, are more effective in knocking out targets than are large numbers of aircraft making area bombing attacks. Attacks of this nature were rarely completed in less than 30 minutes and in many cases the attack took well over an hour. The comparative effectiveness of this type of attack and area bombing has been emphasized many times in past reports by Air Groups as well as in this operation. Large scale area bombing should only be attempted when the primary purpose is to destroy morale and creat general confusion immediately prior to a landing or a scheduled troop advance.

HOW-HOUR STRAFING ATTACK

11. The HOW Hour Strafing Attack, composed of 48VF and 24VTB, commenced their attack when the leading wave of boats was 800 yards from the beach. The attack continued along the beaches until the leading wave was 100 yards from the beach, at which time, the point of aim was moved 100 yards inland. The attack ceased when the leading wave reached the beach.
Although it is difficult to accurately gauge the effectiveness of this attack, it was well executed and from various reports received from the ground forces it accomplished its purpose of limiting enemy fire from the beaches. When artillery cannot be established to support a landing, a strafing attack similar to this is strongly recommended and is considered one of the most important missions performed by Support Aircraft. When artillery has been established, the maximum ordinates are so high it may preclude strafing in the vicinity of the landing beaches, in which case the attack should be moved to the flanks or inland.

SUPPORT AIR (TROOP SUPPORT) OPERATIONS

12. The schedules developed by the Commanders of Carrier Task Groups to carry out the requirements of the Air Plan were furnished to Commander Support Aircraft in advance. This greatly facilitated the work of Commander Support Aircraft, because these schedules gave full information not only of the number of planes to report on station, but also of their bases, radio calls and estimated arrival and departure times. These schedules were carried out as planned with minor exceptions resulting from operational losses, weather conditions, and deviation dictated by the subsequent changes in the military situation. In general the strike groups for troop support were furnished by the Carriers of Task Force 58, while two Anti-Submarine Patrol, Combat Air Patrol, Photographic Planes, Smoke Planes, Air Observer, Air Spotter and Air Delivery missions were performed by the aircraft from the CVE's. It is of great advantage to have the maximum number of planes for any one mission come from the same carrier. This results in the pilots being briefed

identically and preserves the normal leadership and coordination of the Air Group or squadron. A support mission made up of small numbers of aircraft from different carriers lacks uniform briefing and coordination, increases radio transmissions, and should be avoided as far as possible.

13. The reports made by the Flight Leaders to Commander Support Aircraft were orderly and precise and followed closely the form of report specified in the Air Plan. This is essential to prevent unnecessary radio transmissions and to enable Commander Support Aircraft to make the most effective use of the aircraft on station.

14. The Air support Plan provided that attacks could be directed either by Commander Support Aircraft from the Headquarters ship, Landing Force Commander Support Aircraft, Air Coordinator or Flight Leader. The decision which to use was made by the Commander Support Aircraft on the basis of which had the best information available on the particular attack to be executed. Every effort was made to give all information required for an attack to the Air Coordinator or Flight Leader far enough in advance to permit them to transmit further instructions to the flight and maneuver to a favorable position for the execution of the assigned mission. During these periods, transmissions not directly concerned with the immediate attack were ordered off the air, if circumstances required it. The Air Coordinator was kept advised concerning the movement of ground forces and general information relative to the operation and he in turn advised Commander Support Aircraft regarding the situation as seen from the air. The service rendered by the various Air Coordinators was invaluable in coordinating air attacks and their performance of this duty was precise, orderly, and highly satisfactory. The general information given the Air Coordinator and Flight Leaders concerning the ground situation enabled them to keep their maps up to date and to convey pertinent information to their bases to facilitate the briefing of pilots on later missions.

15. It is believed that the operation against SAIPAN was the first time that Carrier-based aircraft were in urgent demand for Close Support missions. At times, there were as many as ten or twelve "urgent" requests for Air Support. This was particularly true during the first few days before the artillery had been set up on shore. Since it is physically impossible for aircraft to operate in a restricted area on more than one mission at a time, a filter system for these requests were devised whereby all requests for close support were passed from the officer handling the Support Air Request Net to a "Filter" officer. As regimental and Divisional Command Posts were set up, the Regimental and Divisional Air Liaison Officers filtered many of the requests from the Battalions. This system worked satisfactorily and is recommended, particularly, when one Support Aircraft Control Party is controlling aircraft supporting more than one division. Close Support missions varied from heavy bombing and strafing attacks prior to a general advance to missions by two or three aircraft assigned to specific targets. Dive bombing, glide bombing, rocket and strafing attacks were all employed, depending on the type of target and mission.

16. After artillery had been established, close support missions were confined generally to attacks on targets, which, due to terrain features, could not be handled by other types of fire. The frequency of requests is evidence of the importance of such missions. Since in most cases, artillery must be stopped during a Close Support mission, it is essential that missions be executed as expeditiously as possible consistent with safety. Intensive training of pilots together with improved methods for marking targets are the two most effective means of accomplishing this task.

LANDING FORCE COMMANDER SUPPORT AIRCRAFT

17. A Commander Support Aircraft with necessary personnel and mobile communication equipment was assigned to the Landing Force Commander at each objective. This Control Party went ashore with the Landing Force Commander and set up their equipment at his Headquarters. The Landing Force Commander Support Aircraft Control Party was capable of taking over control of Support Aircraft operations and was kept in readiness to function as a Relief or Standby for the Commander Support Aircraft. In some instances the control of attack missions were delegated to the Landing Force Commander Support Aircraft but their primary function ashore, in addition to acting as a Standby Control Party, was the coordination of air operations with Corps Artillery and to act as liaison between the Commander Support Aircraft and the Landing Force Commander. In future operations which will involve invasion of large land masses rather than Atolls or small islands serious consideration must be given to the organization and equipment of the Landing Force Commander Support Aircraft. The minimum communication equipment required for the Landing Force Commander Support Aircraft are considered to be:

(a) One prime mover.
(b) One jeep
(c) Sufficient communication Half Track Vans (similar to the mobile communication units, Mark IV, Model I) to establish communication on the following circuits:

(1) SAR	(4) SAD(E)	(7) Second SAO (if required)
(2) LAW	(5) SAO	(8) Spare
(3) SAD	(6) IFD	

ANTI-SUBMARINE PATROL

18. The Anti-Submarine Patrol was furnished by aircraft from CVE's to cover during daylight hours the transport anchorage and ships' operation areas. When the VP Squadron became available, the night Anti-Submarine Patrol plan was instituted. Special charts were furnished to all pilots indicating the sectors assigned. Upon arrival on station, the planes reported to

Commander Support Aircraft, giving their voice calls and the sectors which would be covered by each plane. The Anti-Submarine Plan called for a six-plane (VT) patrol around the objective island during daylight hours. Three of these patrolled sectors 35 miles from the island, the remaining three were 60 miles distant. During darkness, a three plane (VP) patrol was provided composed of three sectors 20 to 60 miles from the objective island.

19. The Anti-Submarine Patrol Plan was designed by the Anti-Submarine Warfare Training Unit (Air), Kaneohe, T.H., and was based on the latest A/S doctrine. Since it is known that enemy submarines were in the vicinity and yet no successful attacks were launched against our ships seems to justify the conclusion that the plan was effective. Such a plan when used in conjunction with an adequate surface screen makes an effective combination against submarines.

20. One Hunter-Killer plane was kept in Condition of Readiness 12 during daylight hours. Several sound contacts were made by vessels in the screen and the Hunter-Killer plane was dispatched to assist, however, no definite "kills" are known to have been made.

FIGHTER DIRECTION AND AIR WARNING

21. Commander Support Aircraft was held responsible for the coordination and the tactical control of Fighter Direction and Air Warning. Experience in defending Amphibious Forces against Air Attack demonstrated the importance of such coordination as essential to the efficient functioning of a multi-unit Air Warning and Fighter Direction Team.

22. Commander Support Aircraft, provided for a Fighter Director Officer on his staff and also provided one for the Commander of each Amphibious Group. Fighter Direction Teams were also furnished designated Fighter Direction destroyers. The importance of this type of organization was evidenced on many occasions. Retirements and unexpected movements of the several forces required flexibility in delegating responsibility for Fighter Direction and Air Warning.

23. All Fighter Director personnel prior to final rehearsals, received special training in all phases of Amphibious Fighter Direction with emphasis on Night Fighter Direction from Destroyers. This latter training proved especially valuable in this operation since all Destroyer Teams on occasion, controlled the Night Fighters. Altitude determination by means of the Destroyer Fire Control Radars was emphasized in the training period. Facilities and Staff Personnel of the Fighter Director and C.I.C. Advanced Training School were made available. Commander Destroyers, Pacific, undertook the installation of the additional equipment for the Fighter Direction Destroyers and cooperated in furnishing Destroyers for Night Fighter Direction Operations. The Night Attack Combat Training Unit

furnished Night Fighters for numerous exercises. The fullest cooperation was received from these activities and their assistance was responsible in a large measure for the excellent results obtained. All personnel, including the land-based units, were assembled at the Fighter Director and C.I.C. Advanced Training School for final briefing prior to departure.

24. Fighter Direction training exercises in connection with other Air Operations, were conducted enroute to the objective. The Anti-Submarine Patrol was augmented on several occasions with one VF flying tandem in each sector. Experience suggests the value of using such an Anti-Submarine Patrol plan where applicable as an anti-snooper defense.

25. Several Enemy air attacks were made just prior to darkness, the first attack occurring on DOG-Day. These attacks were made by a small number of planes after the combat air patrol had departed from the area. One Battleship was damaged by an aerial torpedo and one CVE by bombs. The practice of securing Combat Air Patrol prior to darkness in order to permit planes to be recovered by parent carrier during daylight hours requires further study. It is considered that Combat Air Patrol should be maintained over the objective area until darkness.

26. The first P-61 night fighters were launched at 1945 on the 24th of June. These planes were controlled from the CAMBRIA and the ROCKY MOUNT and later by the Fighter Director Destroyers. The Fighter Director Units ashore eventually became the principal controllers. Beginning June 24th, the VF(N)'s were employed nightly. Altitude of enemy raids was difficult to determine in the initial stages of the operations and the Fighter Director Destroyers with their fire control radar were in many cases the only source of altitude information. Their success in securing prompt altitude estimates contributed materially to the interceptions accomplished. There were seventy-six designated raids during the period of 15 June to 7 July, each raid averaging one to three planes for an estimated total of one hundred and fifty aircraft in all. The largest single night raid, estimated as twelve planes struck SAIPAN on the 21st of June. These raids may have originated from bases in the BONINS, TRUK, PAGAN, ROTA, or GUAM but their approach indicated that the great majority came from the ROTA-GUAM Area. The majority of attacks were horizontal bombing runs, although on many nights they undertook only harassing tactics, with no definite plan. A few low-level runs were also recorded. The evasive tactics employed indicated the Japs have knowledge of the limitations of radar, and the amount of "window" dropped indicates that the use of counter-measures by the Japs may be expected to continue.

27. The Fighter Director Destroyers BENNION, BRYANT, TWINING and PRITCHETT and the Army Signal Air Warning Companies and Army Controllers under the Air Defense Commander handled their duties in connection with Fighter Direction and Air Warning in a very capable manner. The Destroyers served

as outlying radar pickets as well as assuming Fighter Direction Control when directed. Their assistance in altitude determination was an important factor in the night fighter control.

ANTI-AIRCRAFT COORDINATION

28. Prior to the establishment of the temporary Air Defense Control Center ashore the control of the Anti-Aircraft Batteries ashore was set up temporarily in the C.I.C. in the CAMBRIA, which vessel was in direct communication with the Force and Group Fighter Directors. It was anticipated that air raid information would be received by the Anti-Aircraft Control Officers in the CAMBRIA with the information being filtered by the Force and Group Fighter Directors. With this arrangement the batteries ashore could be directed to withhold or open fire as conditions warranted because the Control Officer in the C.I.C. room was in direct communication with the aircraft and batteries ashore.

29. Upon the establishment of the temporary Air Defense Control Center ashore the control conditions on the beach were verified by the Force Fighter Director. Normally, Control Yellow was in effect on the beach during an air alert with Control Green ordered when the VF(N) aircraft were landing or taking off. A restricted area was established around the islands and VF(N) aircraft proceeded into this area only while taking off or landing except when specifically authorized by the Force Fighter Director in cases of hot pursuit.

30. Communications between the temporary Air Defense Control Center ashore and the Force Fighter Director afloat were excellent and at no time was there any doubt regarding responsibility for control.

MISCELLANEOUS OPERATIONS

31. In addition to Troop Support, Combat Air Patrol and Anti-Submarine Patrol, a number of other special missions were flown. They are enumerated and discussed below:

(a) Air Coordinator. An Air Coordinator was on station over the objective area during daylight hours. He was a Group or Squadron Commander from one of the participating carriers and was charged with the responsibility of coordinating the air strikes and of keeping Commander Support Aircraft advised of developments on the ground situation. He assisted in locating targets, in directing strike groups to the designated target and in coaching pilots in the execution of their assignments. The services performed by the Air Coordinator are extremely important ones and proved to be invaluable to the Commander Support Aircraft. This duty was executed in a highly satisfactory manner.

(b) Air Observer. Carrier Aircraft with Infantry Officer observer from each assault division were maintained in position to report the developments of the ground situation to the Commanding General and to his own Division Headquarters. These observers reported on separated frequencies and operated more or less independently in carrying out their assigned missions. They were of assistance to the Commander Support Aircraft in reporting front line positions, in discovery of new targets, reporting targets of opportunity, and evaluation of attacks.

(c) Photographic Planes. Inumerable photographic missions were flown in compliance with the requests received. Delivery of the negatives, and in some instances of prints, were made by drop either to the Headquarters Ship or to the Headquarters ashore. In the later phases of the operation, delivery was made at the airfield. Although the photographic missions were of great benefit to the conduct of the operations they were not entirely satisfactory for several reasons. First, requests for photographic coverage were often made too late and called for specialized shots that were beyond the capabilities of the equipment available. Some of the pilots and personnel of the photographic planes were inexperienced in this highly specialized work. Another difficulty experienced was the lack of coordination between the various activities requesting photographic missions.

(d) Smoke Planes. Smoke-laying planes were on station at various periods but were not employed. In view of the many small craft available to lay smoke and the availability of W P shells from the Fire Support vessels it is felt that the use of aircraft for this purpose should only be used as an emergency measure and thus release the aircraft for combat missions. However, in anticipation that future operations may require the availability of some smoke planes more attention should be given to the proper training of pilots for this work and to the proper functioning of the equipment. The results obtained during the rehearsal were not entirely satisfactory.

(e) Artillery Spotters. Aircraft from the CVE's were used to carry the Artillery Spotting Officers during the early phases of the operation. Each CVE had on board two O-Y type airplanes with their assigned pilots and observers, and these planes were employed for these missions after facilities were available for the operations of these aircraft ashore. Commander Support Aircraft did not maintain communication with these planes, the control of them being handled directly by the Artillery Units.

DESIGNATION OF TARGETS

32. The basic system for designation and location of most targets was the "Air Target Map". A common Target Area system was used by Ground Forces, Artillery, Naval Gunfire and Air. The Air Target Map is adequate to guide the pilot to the general area of the target but is not sufficient to pinpoint a target. Various methods were used to designate targets and

areas in close support missions. White phosphorous mortar shells were used with success in quite a number of instances. Dummy runs for both strafing and bombing attacks were also successful in marking areas for close support attacks. Battalion Air Liaison Parties informed Commander Support Aircraft if the runs were made on the correct areas and corrections were made where necessary. This system has the advantage of increasing safety for the troops but the time element required to execute a mission makes it unsatisfactory for most operations. Fluorescent panels were a great help in marking the front line of troops and where used were readily seen from below 2500 feet, but were very difficult to see from above 2500 feet. Although the present system for designation of targets leaves much to be desired, the various systems used on this operation operated with considerable success.

33. Coordination of Air, Naval Gunfire and Artillery Fire
The coordination of Naval Gunfire, Air and Artillery presented two distinct problems and will be treated accordingly:

(1) Coordination of Air and Naval Gunfire.
Prior to H-Hour, with the exception of counter battery fire, Commander Support Aircraft knew the location and maximum ordinate of Naval Gunfire from the Naval Gunfire schedule. After H-Hour it was more difficult to coordinate Naval Gunfire with Air Attacks as Naval Gunfire was controlled directly by the Shore Fire Control Parties. However, this did not present too difficult a problem since this type of fire has a relatively low ordinate and aircraft were warned accaccordingly. Firing on targets of opportunity at longer ranges presents a greater problem for which no satisfactory solution was found.
In general, the coordination of air and Naval Gunfire showed a marked improvement over past operations. Information on targets was exchanged between Commander Support Aircraft and Force Gunnery. Naval Gunfire was lifted in certain areas when requested by Commander Support Aircraft and air attacks were stopped when requested by Naval Gunfire. Attacks on enemy positions were assigned to either Air or Naval Gunfire after discussion of which type of fire could most effectively handle it.

(2) The Coordination of Air and Artillery presented a more difficult problem due to higher ordinates, rapid rate of fire and lack of central control of the four separate units (2nd MarDiv, 4th MarDiv, Corps, 27th Inf.) Information on Division Artillery was obtained by Commander Support Aircraft through the Air Liaison Parties and on the Corps Artillery through the Landing Force Commander Support Aircraft, but it was never possible to determine at any given time from where and on what areas all the artillery was firing.
In many instances Division and Corps artillery were lifted in certain areas to allow air strikes and close support missions. Although

it was accomplished more successfully in this operation than in the past there is still room for considerable improvement and the subject deserves further study. Close timing and coordination are essential if artillery and air are to be used to the maximum effectiveness.

BOMBINGS - ROCKET ATTACKS - STRAFING

34. The bombing on this operation was, generally, well executed and fairly effective. It is believed, however, that for the type of targets encountered on SAIPAN, strafing and rocket attacks are more effective in most cases. The difficulties in knocking out comparatively small targets, such as gun installations, by glide or dive bombing attacks was well illustrated in the preliminary air attacks on TINIAN where records were kept of all missions and results checked by aerial photographs. Batteries of 4 to 5 guns, clearly visible from the air, were attacked 3 or 4 times by as many as 6 to 8 bombers. Photographs later showed that in most instances, only a few of the guns had been hit and definitely knocked out. These attacks were made under conditions extremely favorable to executing a good attack. Bombing was effective in softening up the Landing Beaches prior to landing, against enemy troop concentrations and supply dumps, and in destroying buildings. It was also effective on heavily defended areas where there was a concentration of defense installations. Although not always successful in destroying the main installations, it knocked out supplementary installations such as command posts, direction finders and supporting weapons.

35. Aircraft rockets were used extensively on SAIPAN for the first time in a Central Pacific Amphibious Operation. In spite of insufficient training in their use and the fact that no delayed fuses were available, rockets proved to be one of the most valuable weapons for Support Aircraft. There were numerous examples of direct hits on small targets. However, the lack of delayed fuses was a serious handicap. Direct hits on concrete and armored positions were completely ineffective. Due to their accuracy, Rockets will continue to be one of the most effective weapons for Support Aircraft; and every effort should be made to install rockets on all VF aircraft, obtain delayed fuses and intensify pilot training in their use.

36. In addition to the HOW-Hour Strafing attack, strafing was used extensively in close support missions against enemy concentrations close to the front lines. The effectiveness of these attacks was witnessed by many enemy dead from 50 caliber bullet wounds. Strafing was also used to knock out enemy vehicles, silence guns and for attacks on numerous other installations. It is felt that strafing is most effective in support missions and that its powers of disrupting the enemy and destroying installations has not been fully appreciated, due possibly to the fact that there is no explosion or visual indication from attack as in the case of bombing.

MAPS AND INTELLIGENCE MATERIAL

37. Experience in previous amphibious operations dictated the necessity for uniform maps based upon the same grid and target designation system for all naval, air, and land forces involved in the operation. After many conferences the interested representatives of the various forces involved agreed upon the following basic principles:

(a) Uniform sheet numbering system for all maps based on the Ground Forces 1 to 20,000 scale maps.

(b) All 1000 yard grid squares, which cover land areas, to be consecutively numbered with three numeral numbers starting in southwestern corner of land area covered.

(c) Each 1000 yard grid square to be sub-divided into twenty-five 200 yard squares, lettered from A through Y, beginning in upper left corner.

(d) References to targets on land areas to be given as (Target Area 106 Peter) instead of in grid coordinater.

38. It was necessary to delay preparation of the Air Target Maps until the ground forces maps were completed. As these maps were dependent upon photo coverage of the objective areas, they were not completed soon enough to allow adequate preparation of the Air Target Maps. In the future, photo coverage should be made far enough in advance to allow ample time for the proper drafting of all Maps and the inclusion of target data derived from latest photo coverage.

39. Air Target Maps were prepared for Guam, Rota, Saipan, Tinian, Agiugan, Woleai, and Ulithi. The following principles were followed:

(a) Air Target Maps were 8" X 8½" reductions of 1/20,000 Air and Gunnery Target Maps. This is the standard size of all Air Pac - JICPOA Air Target Maps for cardex file of standard plotting boards.

(b) Only those portions of maps covering land areas were included. This resulted in variation in scale, but gave maximum scale for portions covered.

(c) Details which cluttered up the maps were eliminated.

(d) Special anotations of targets were added.

(e) Each Air Target Folder began with an index map showing areas covered by respective sheets. To each Air Target reference was made to Island, Sheet number, Number and Letter of Target Area. (Example -- "Guam, Sheet 1, Target Area 166 Able".)

40. As a result of the Forager Operation, the following general conclusions regarding Air Target Maps have been reached:
(a) Target designation system is most satisfactory yet devised. Navy pilots requested that letters in 200 yard grid squares be omitted with sample 1000 yard grid squares with twenty-five 200 yard grid squares over-printed with letters in water area.
(b) The principle criticism held that the maps should be more pictorial. Roads, buildings, wooded and cleared areas and similar landmarks visible from the air should be emphasized.
(c) Water should be shown in blue, lagoon in light blue, with deep spots darker blue, and reefs in white.
(d) Contour lines should only be shown every 100 feet with Hachure Marks used for peaks and cliffs.
(e) Maps do not have to be limited to 8" x 8½". They can be as large as 15" x 24" and folded so as to fit cardet. There should be an overlap between adjoining sheets.

AEROLOGY

41. Weather forecasts were made for the Mariana Islands Area daily by the Fleet Weather Center, Pearl Harbor, and by the Aerologists on the Staff, Task Force Commanders. These forecasts proved accurate. The weather favored aircraft operations. Ceiling and visibility were generally good except for short periods when light rain and low ceiling was experienced.

CONCLUSIONS

42. It is believed that Support Aircraft contributed more to the success of the FORAGER Operation than in previous operations against Coral Atolls. The employment of aircraft during both the amphibious and assault phases is considered to have been correct in conception and execution. It is further believed that:
(a) The dependence on Support Aircraft by the Assault Forces will increase as the objectives in future operations increase in size.
(b) Aircraft can perform certain missions far better than other types of weapons and should be employed primarily for such missions.
(c) The smooth functioning of aircraft used in close support missions requires intensive training of pilots and control personnel.
(d) The lessons learned in this operation should be carefully studied and incorporated in future amphibious operations.

RECOMMENDATION

43. The following recommendations summarize matters which should receive further study and careful attention during the planning and training phases of future operations. Commander Support Aircraft will initiate action on these recommendations in [illegible] practicable; however, action on some of them should be taken by [illegible] Commanders of the activity having the paramount interest in the question [illegible].
In order to increase the effectiveness of Support Aircraft for further amphibious operations, it is recommended that:

(a) Training exercises between carrier Air Groups and landing forces in the United States, in the Hawaiian and forward area, be intensified and that closer liaison between these air and ground forces be developed in order that they may better understand each others problems.

(b) A number of CVE Squadrons should be specifically trained for Support Air operations, the number to be determined by the availability of carriers, squadrons and plans for future operations.

(c) Intensive training in smoke laying and photographic missions be given to a few selected pilots from each CVE scheduled for employment in any amphibious operation and careful attention given to the equipment to assure proper functioning and improved technique.

(d) The Anti-Submarine Warfare Training Unit be consulted in designing the Anti-Submarine appendix of the Air Plan to insure that latest methods and weapons are employed.

(e) The rehearsal of an amphibious operation should include, in so far as practicable, participation of the Air Groups scheduled to take part in the prospective operation. Upon completion of the rehearsal a critique should be scheduled to correct deficiencies shown during the rehearsal and to cover a final briefing of important features in the prospective operation.

(f) All carrier pilots who are to be employed in an amphibious operation should be carefully briefed not only on the Air Plan but on the general scheme of maneuvers of the ground forces. This should be done by the Commander Support Aircraft together with a representative of the ground Forces.

(g) Consideration be given to providing a Naval Aviation representative with a small number of key aviation maintenance and communication personnel and equipment to set up headquarters at the first air field captured to function as liaison and as an emergency repair unit ashore for Naval Aircraft during the assault phase.

(h) The practice of using a limited number of O - Y type artillery spotting planes with their assigned pilots and observers be continued in future amphibious operations.

(i) The composition of the control party and the equipment required by the Landing Force Commander Support Aircraft be given further study.

(j) All carrier pilots receive more intensive training in Support Aircraft Operations.

(k) Further study be made to improve the method of marking targets and front line positions.

COMMENDATIONS

44. This operation employed more aircraft than any previous amphibious action in the Pacific. That the missions were promptly and efficiently executed, is a great tribute to the competence, enthusiasm and keenness displayed by all the pilots taking part in the operation. Pilots who gave protection to the Task Force by flying Anti-Submarine Patrol and Combat Air Patrol missions deserve special mention for the manner in which they cheerfully carried out long and tedious assignments.

45. The performance of the Air Liaison Parties in a difficult assignment with the assault troops was commendable. The excellent manner in which they established communications ashore, relayed requests for strike missions, and furnished timely and accurate information is especially noteworthy.

PART III COMMUNICATIONS

TRAINING

1. During the period between FLINTLOCK and FORAGER, personnel of Support Aircraft was augmented by two full Control Parties which had been trained by Commander Amphibious Training Base, Pacific. Combat experienced radio supervisors and radio technicians, plus a few key officers, were added to each new Control Party. Both new Control Parties and experienced Control Parties were given further training at the Support Aircraft Operational Training Base, Puunene, Maui. This training consisted of actual drills with aircraft and Air Liaison Parties, tuning radio transmitters and receivers, copying of radio traffic, simulated battle problems employing Support Aircraft tactics, and copying of radio traffic. Finally, intensive training was conducted aboard all Headquarters Ships while enroute to the Mariannas.

SHORE PARTIES

2. Plans for FORAGER required that two Control Parties be prepared for Support Aircraft duties ashore. One party, consisting of four officers and fifteen men, was organized in Pearl Harbor. This team was trained as a unit at Camp Catlin, using mobile equipment mounted in an Amphibious Tractor and a DUKW. The other group was organized at Guadalcanal, with equipment and personnel furnished by the Third Amphibious Corps, except for key officers and personnel with previous combat experience furnished by Commander Support Aircraft.

COMMUNICATION EQUIPMENT AND INSTALLATION

3. Advance Commander Support Aircraft was embarked in the USS HONOLULU, USS WASHINGTON, USS TENNESSEE, and USS HOPKINS. Additional equipment was added to these ships to provide the necessary communication channels. The major difficulty experienced was procurement and installation of equipment in forward areas such as Guadalcanal and Majuro. However, communication facilities on these ships were satisfactory.
The CUSTER, GEORGE CLYMER, and CALVERT were designated as relief Headquarters Ships. The CALVERT had been used previously, and required no additional installations. The CUSTER was equipped with mobile jeep mounted radios set up on the deck, with remote lines leading to a small control room. A small permanent installation was available on the GEORGE CLYMER. Improvements were made on installations aboard the ROCKY MOUNT. The FREMONT was completely equipped as a Headquarters ship, but during operations it was noted that much "feed over" and low output by transmitters resulted from the present layout of the antennas and trunk line system. The CAMBRIA similarly received major alterations but the space available as a Joint Operations room is inadequate.

THE COMMUNICATION PLAN

4. A draft of the communication plan for the Support Aircraft section was prepared and submitted to ComCenPac. After study and consultation it was

modified to incorporate certain suggestions by Carrier Air Groups and Air Liaison Parties. The plan proved to be satisfactory and workable.

THE REHEARSAL

5. Numerous conferences were held with communication officers of Air Groups, Carriers, Air Liaison Parties, Fighter Director Teams, and Support Aircraft Control Parties prior to the Rehearsal. During the Rehearsal several instances were noted in which incorrect frequencies, improper net discipline, and incorrect voice calls and procedure were used. Much "feed over" interference was experienced aboard Headquarters ships. A critique held following the Rehearsal discussed these problems and worked out solutions.

ATTACK OPERATIONS

6. Communications were excellent during FORAGER. Net discipline and radio procedure were much improved over previous operations. An analysis of Support Aircraft communication nets follows:

(a) SUPPORT AIR DIRECTION (4915 kcs.)
Communication on this net was good. The Navy FM's and Army P47's carried ONLY ~~no~~ Very High Frequency equipment, therefore the Commander Support Aircraft was forced to use split phones (one on SAD (HF) and one on SAD-E (VHF) (140.58 mcs.)) in controlling aircraft. This presented a difficult problem but careful handling of the net plus good discipline by the Air Groups made it successful. The forced use of the two channels for Support Air Direction was not entirely satisfactory since at times it slowed down the direction of air attacks.

(b) SUPPORT AIR DIRECTION--EMERGENCY (VHF) (140.58 mcs.)
This net was used to supplement Support Air Direction, and the Very High Frequency was found to be satisfactory.

(c) LOCAL AIR WARNING (3465 kcs.)
Communications were generally good. Some trouble was experienced in communications with PBM planes, due partly to faulty equipment but also to improper procedure by pilots.

(d) LOCAL AIR WARNING -- SECONDARY (3355 kcs.)
This net was used successfully to reduce the load on the Local Air Warning net when Hunter Killer operations were being conducted.

(e) SUPPORT AIR OBSERVATION (SAO-1 and SAO-2 (3400 kcs. and 3080 kcs.)
Communication on this net was excellent between Headquarters ships and aircraft. It was also monitored by Division Commanders, and cooperation between them and Commander Support Aircraft was mutually valuable. Faulty equipment and poor operator technique by Division communication teams resulted in poor communication between Division Commanders and aircraft. It is recommended that frequencies be assigned which will allow Regimental and Battalion Air Liaison Parties to monitor this net.

(f) SUPPORT AIR REQUEST (3925 kcs.)
This net was used primarily between Commander Support Aircraft and Air Liaison Parties. It was also used for communication between Commander Support Aircraft and Carrier Task Groups, which caused the net to be greatly overcrowded.
In general, communication with Air Liaison Parties was good except (1) when ALP's failed to tune transmitter and receiver properly, (2) when topography of the island interferred, and (3) when distances up to 12 or 15 miles were too great for the transmitter range of the SCR 284. Proper tuning was effected by requiring ALP's to zero beat their transmitters to the frequency of Commander Support Aircraft Control. ALP's from three divisions were all tuned on the one frequency, and it was necessary to maintain strict radio discipline. Excellent cooperation of all units made it possible to handle 43 Air Liaison Parties on one net with a minimum of delay. The overall work of the Air Liaison Parties during FORAGER was outstanding.

(g) INTERFORCE WARNING (3000 kcs).
Communication and discipline were good. This net was used as a secondary for Local Air Warning and to work PBM search planes over great distances. A powerful transmitter was employed, and good voice transmissions were made at a distance of 110 miles.

(h) INTERFIGHTER DIRECTOR (37.6 mcs)
This net was used for rapid voice traffic between Fighter Directors, ashore or afloat. Communication was only fair due to (1) limited range of the SCR 608 and SCR 808, and (2) great interference in the SCR 808 receiver from the many transmitters on the Headquarters ship. The frequency chosen for Inter Fighter Director made it impossible to talk at distances of much over 20 miles, which at times was a great disadvantage.

(i) FIGHTER DIRECTION--OBJECTIVE AREA (6535 kcs.)
Use of High Frequency on this net limited its value, for neither the FM's nor P47's were able to use it. Very High Frequency is considered mandatory.

(j) INTER COMMANDER SUPPORT AIRCRAFT (37.6 mcs.)
This net was employed as an administrative channel in order to keep the tactical circuits clear. It was operated between Commanders Support Aircraft afloat and ashore. It was extremely valuable in coordinating activities with land based Aircraft Commands such as that at Isley Field, Saipan.

SHACKLE CODE

7. The shackle code was used extensively and successfully, even though it was compromised early in the operation. It is felt that use of the shackle code should be limited to transmissions where security of location or time is especially important. Its limitations should be clearly understood.

PANEL CODE

8. CCBP-8 was prescribed for use during FORAGER, but was not actually employed. Pilots reported only moderate success in determining front line positions from panel displays.

PYROTECHNIC CODE

9. Pyrotechnics were seldom used except in some instances where "Attack Completed" flares were dropped by aircraft. Use of white phosphorous mortar shells was frequent and generally effective in marking targets.

AUTHENTICATORS

10. Authenticators were seldom used, as reliability of communication and close coordination of all units working through Commander Support Aircraft made authentication unnecessary.

CONCLUSIONS

11. From analysis of FORAGER operations, the following conclusions were reached:
(a) The organization and training of Support Aircraft Control Parties by ComPhibTraPac has proved to be of great value. The instructional staff of ComPhibTraPac should be augmented from time to time by Support Aircraft personnel who have gained experience in recent attack operations.
(b) Extensive briefing and critiques between Air Groups, Air Liaison Parties, and Support Aircraft Control personnel is most valuable.
(c) Newly trained Support Aircraft Control Parties sent by ComPhibTraPac should be strengthened by adding key officer and enlisted personnel with combat experience.
(d) Installations aboard each General Communications Ship (AGC) should be standardized as far as is practical.
(e) CentComTWO was a satisfactory communication Plan.
(f) Air Liaison Parties were well trained and performed their duty in a creditable manner.

RECOMMENDATIONS

12. The following matters should receive further study and attention prior to future operations. The Commander Support Aircraft will initiate action where appropriate.
(a) Combat experienced officers should be sent to ComPhibTraPac for temporary duty following each operation to furnish up to date information on training requirements.
(b) The following nets should be added to Support Aircraft circuit list:
(1) Inter Commander Support Aircraft
(2) Dumbo Rescue
(3) Inter Fighter Director (MF)
(c) Very High Frequency (VHF) should be used for Support Air Direction.
(d) High Frequency (HF) should be used for Support Air Direction-Emergency.
(e) Very High Frequency (VHF) should be used for Fighter Direction-Objective Area.
(f) Air Liaison Parties should be provided with crystal controlled transmitters in the Medium High Frequency range. The SCR 694 is believed to be satisfactory for this use.
(g) A definite procedure should be established, and a doctrine promulgated, for the use of white phosphorous or colored smoke shells to mark targets for Support Aircraft attacks.

(h) A High Frequency (HF) or Medium High Frequency (MHF) with transmitter of sufficient power be employed by all Forces throughout the Pacific area for the Inter-Fighter Director Net. This is desirable due to the extensive use of Radar Picket vessels and the necessity for an Inter-Force Inter-Fighter Director circuit separated from the General Warning Net.
(i) Direct voice communications between Commander Support Aircraft and Commanders of Carrier Task Groups should be conducted on a circuit other than Support Air Request.

[redacted]

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ENCLOSURE (J)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

COMMUNICATIONS

SECTION INDEX

[redacted]

ENCLOSURE (J)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

COMMUNICATIONS

I. PRELIMINARY PLANNING AND TRAINING.

1. Communication planning for FORAGER was commenced immediately on return from FLINTLOCK and was carried on vigorously. Final deliveries of plans and equipment were not, however, accomplished in time to prevent a difficult last minute rush. It is believed that the most useful and important means of improving communications available to us are improved advance planning and early establishment of adequate pools of equipment. No matter how good final plans may be, successful communications depend to a large extent on thorough briefing and training of personnel and skillful, accurate adjustment of equipment.

2. Establishment of an Amphibious Forces Communication School at Pearl Harbor shortly after the FLINTLOCK Operation was of great value to the FORAGER Operation and lasting value to Amphibious Forces. This school trained voice and CW operators, materiel men and signalmen in many details of advanced amphibious operations. Instruction was given in use and maintenance of SCR 608-610 and other Army-type radios as well as the usual Navy types. Control Vessel, Group and Division Beachmaster communication teams formed from Naval components of Jascos were given invaluable indoctrination and training in their special problems. Over 500 officers and men were given from 3 days to 3 weeks intensive instruction.

3. The final rehearsal was, as usual, of tremendous value in accustoming communication personnel to their jobs and improving everyone's understanding of the organization of the force and plans of attack. A complete and thorough rehearsal has proved to be one of the most important stepping stones to successful communications; its value cannot be overemphasized. The rehearsal was conducted using all frequencies, equipments and voice calls in accordance with assault plans.

II. THE COMMUNICATION PLAN

4. The Communication Plan, CentComTWO and subsidiary plans, worked out very well. The many advantages of a single, carefully coordinated plan for all elements were again demonstrated. Allocation of frequencies was satisfactory, considering the scarcity of frequencies and the magnitude of forces involved. Surprisingly few cases of serious [redacted] reported. Interferences which did occur were chiefly on crowded voice channels and were partly due to minor misinterpretations of the plan or off-frequency operation. The principle of "functional communications", especially in the assault stages, was again proved sound.

COMMUNICATIONS

5. The basic difficulty in planning communications for a large-scale operation is now the scarcity of available channels, partly due to limitations of available equipment. There is an ever increasing need for more channels for services now using the SCR 608-610 and SCR 300 equipments, covering the frequency bands 27 to 50 megacycles. Army, Marine, air and surface forces all require many of these channels. The new type MN and MAN radios and drone boats are also in this band. Only the early provision of the new 225 - 390 mcs. VHF equipments in large quantities can effectively relieve the congestion.

6. As operations become larger and more complicated, successful communications can only be attained if all services reduce the channels required by placing more units on a common frequency and improving radio discipline. Visual, wire and messenger should be used wherever practicable. Radio should be reserved for essential operational traffic. If this is done, placing more stations on the same net improves operational communications by insuring better coordination and a more rapid flow of information, without relays, to those who need to know.

7. The organization charts and diagrams proved valuable as did the pocket sized manuals prepared for use by beach and control craft parties. Such devices were not intended to and cannot replace a thorough study of the entire organization and communication plan, but they can and do serve as an invaluable aid and handy reminder of important points.

8. CentComTWO has proved to be a very successful working plan for this type of operation, and should be modified only by issuing changes in necessary details without changing principles.

III. PERSONNEL.

9. The performance of personnel merits the highest commendation. This applies to both officers and men, who were required to work long hours under heavy pressure. So far it has been impossible to provide really sufficient personnel for periods of heavy load. Not only are skilled communication personnel unavailable in adequate numbers, but there is a definite limitation on the number of personnel that can be carried in a headquarters ship because of living spaces requirements. In the headquarters ship ROCKY MOUNT all communication personnel stood watch-and-watch for approximately six weeks commencing D-Day. Morale remained high, and results were gratifying, but fatigue caused a definite drop in efficiency. Credit is given to the communication school for its pre-operation training of radio operators, message-center personnel and for familiarizing materiel [illegible] their equipment.

IV. MATERIEL.

10. Certain difficulties in the supply of SCR 608-610 equipment contributed to the usual last-minute rush. Despite hurried installation and too little time to make proper adjustments the SCR 608-610 continued to justify its excellent reputation. It is invaluable in the present situation, for use in boats as well as small-craft, in those vessels which must communicate with such stations, and for general short-range voice communication. Simplicity, crystal frequency stability and push-button control are essential with the untrained personnel necessarily used. The fact that the equipment is not truly short-range, especially during daylight hours, limits its usefulness during the cruising and the approach phases.

11. In this operation the use of the TBY was almost eliminated, to the great relief of all concerned. More TBS equipments are still needed for transport types and particularly for LST Flotilla and Group flags. This is an urgent requirement to avoid the necessity of transmitting maneuvering signals and orders to a cruising disposition over several circuits. As frequently recommended, each Task Force and Group, and each type, should have a separate VHF voice circuit in addition to the general TBS circuit.

12. Equipment ashore worked well. It is desirable to have a more satisfactory means of waterproofing the SCR-610, which gave the beach parties some trouble in this regard. The recently developed carrying-box gave satisfactory weatherproofing; sets were reasonably well protected over long periods of exposure where actual immersion did not occur. The TBX requires modernization and improvement. Its frequency range should be extended to cover 1500-8000 kcs. and crystal frequency control is needed.

13. The desirability of a combined tender and spare-parts stores ship for electronic materiel is increasingly evident. Such a ship should arrive as soon as possible after D-day, to service all vessels in the objective area. Lacking such a vessel, arrangements were made as detailed below to meet the problem. They were only partially successful.

14. No unexpected trouble was experienced with ordinary radio equipment. A considerable number of repairs and replacements were required for the SCR-608-610, primarily from the smaller craft. These calls were met by personnel from the ROCKY MOUNT and other headquarters ships, to whose technicians credit is given.

COMMUNICATIONS

15. With limited space and personnel the ROCKY MOUNT repaired, overhauled or set up more than 350 individual pieces of equipment, largely of the SCR 608-610 series. Forty permanent installations were made in types ranging from small-craft to transports. Over fifty calls for miscellaneous spares, services and equipment were answered. Fortunately a reasonably large supply of spares was available in the headquarters ship. Although this work was admirably done under considerable handicaps, tender service should be provided whereever possible.

16. The personnel which various units have been sending, since FLINTLOCK, to the Amphibious Forces communication school provided a nucleus of materiel personnel in each unit. The school program should be expanded since many more and better trained communication personnel are badly needed.

17. There remains a major problem of power supply for the SCR 608-610 equipments. Dry batteries are critical. Wherever possible storage batteries were used. In the larger ships motor-generators and charging panels were developed to keep them in operating condition. More motor-generators and dynamotors are needed.

18. A detailed report of radio and radar maintenance and materiel problems is being submitted separately to the Commander in Chief, U.S. Pacific Fleet and to the Commander Service Force, U.S. Pacific Fleet.

19. Considerable improvement was noted in radar maintenance. The marked increase in the ability of small-craft personnel to maintain their own equipment is directly attributed to special radar maintenance training courses inaugurated at the Radar Maintenance School, Pearl Harbor, immediately after the FLINTLOCK Operation. This type of training is very valuable and should be improved and continued. The flag and the ROCKY MOUNT technicians assisted whenever called upon by other ships. In most cases evidence of intelligent service methods by ship's personnel was apparent.

20. Supply problems arose from the prolonged absence of the Force and from major sources of supply of spare parts and tubes. Tender spares for search radars were carried by each Amphibious Group and helped considerably in relieving the shortages. This supply was not adequate to fully handle the problem. Critical spare parts and tubes were sent to the forward area by Commander Service Squadron TEN and Naval Supply Depot, Pearl Harbor on request whenever parts were available. Travel time and rapid movement of ships often prevented delivery of parts from Pearl.

V. CRUISE TO OBJECTIVE

21. Radio silence was maintained except on VHF. Even on the latter, no traffic was handled in the low range of the SCR 608-610 except at night. Frequent drills of all kinds using VHF and tests of IFF were held. Radar reporting drills and exercises in Radar Guardship teamwork proved very valuable. Detailed recommendations for exercises to be included in USF 10(A) have been made. See Part VIII.

22. NAN signalling had it first real test and was moderately successful. Experimentation with procedure finally resulted in use of the "steady dash reception" system, blinking light off twice to indicate reception of each word. This equipment has definite value, and should be developed. All combatant vessels should have NAN signalling equipment and point of train lights as soon as practicable.

VI. LANDING AND UNLOADING OPERATIONS.

23. The SCR 608-610 equipment of the transports and small-craft served them satisfactorily. Available channels appeared to be reasonably well divided between the various groups and types. Some circuits became overcrowded when operated as "free nets", but the direction of a controlling station smoothed out traffic problems in most cases. The TBL, TCP-TCS equipment and channels could have been used to better advantage in some cases to relieve heavy loads on SCR-610 channels.

24. In the later consolidation phases, the need for SCR-610 equipment in merchant and auxiliary types, to facilitate unloading, was acute. This need was partially met by spot installations made by personnel from the headquarters ships. Such installations should be made in rear areas before the ships are sent forward.

VII. ESTABLISHMENT OF SHORE FACILITIES

25. Initial shore communications were set up quickly and functioned approximately as designed for the assault phase. Some minor difficulties carried over into the consolidation phase, when they could have been more rapidly cleared up.

26. The forces afloat relayed some traffic that could have been transmitted directly to and from rear areas. In the early consolidation stages [illegible] from rear areas were sent to forward area shore stations for [illegible] so that translations had to be obtained afloat or re-transmission requested. The delays caused thereby were more apparent than real, however, since the headquarters ships usually intercepted the transmissions, realized the shore stations could not decode, and sent translations ashore before they were asked for.

COMMUNICATIONS

27. It is suggested that the regular harbor circuits, under control of a well organized Joint Communication Center ashore, should be established as early as practicable for the use of merchant and auxiliary types, even though the combatant units are still using their tactical communication organization.

28. After FLINTLOCK, the recommendation was made that headquarters ships be provided with cable providing a ship-shore land-line link. Recent correspondence has proposed the provision of radio teletype for this service. Either provision would be of great value in conducting local ship-to-shore communications.

VIII. RADAR OPERATION

29. The value of Radar develops continuously with more experience in its use. In this operation various ideas, some new, were tried out and justified themselves. Among these was the team guardship system for large dispositions and anchorage areas. Instead of one guardship, or group, trying to be "all things for all purposes", a division of responsibility was made by several types of guards. Vessels were assigned for Long Range Air, Medium Range Air, Surface and Anti-Submarine, and Low Flying Aircraft guards. Screening in depth (distances) was accomplished. It is believed that this teamwork definitely increased the efficiency of radar coverage and continuation of the basic principle is recommended.

30. Trouble was experienced with the anti-torpedo-plane radar coverage of the anchorage areas, culminating in the torpedoing of the MARYLAND by a plane whose approach had been undetected. Land echoes and echoes from the large number of own ships and aircraft were at least partly responsible for undetection. Strenuous efforts to improve low flying air search and detection must be continued.

31. During the cruise to the objective, numerous radar reporting drills were held. They proved necessary and gave greater uniformity and accuracy to reports. A detailed standard form for Radar reports was promulgated. Several new types of radar drills were developed, and suggestions for their permanent employment have been covered in separate correspondence.

32. There is an immediate need for the installation of SP radar in headquarters ships. During Flintlock and Forager shore-based night fighters could probably have been vectored to intercept enemy planes much more efficiently had this type of radar been available at the objective. Fighter direction was carried out fairly well by the use of the SC, SK, and FD radars and teamwork among the guardships, butfighter direction had to be passed from one ship to another. This recommendation has been the subject of previous correspondence.

IX RADAR COUNTERMEASURES.

33. No countermeasures other than interception were employed by this force. Considerable effort was expended in the location and identification of what eventually turned out to be newly-installed U.S. Army shore radars. Information concerning such installations should be promptly disseminated to own forces in a local area. The effort was not wasted, however, as it gave valuable experience in the development of jury-rig Radar D/F equipment (use of the SK array as a directional receiving antenna for the radar intercept receiver) which has been separately discussed in other correspondence The results obtained served to emphasize that a broad-band directional antenna should be provided for use with the AN/APR-1 radar search receivers. The SK antenna cannot be made available for the direction-finding of enemy radar installations during the early phases of the assault except for a few moments now and then, yet the interception which a separate antenna would permit at this time might be of considerable value.

34. No definite instance of enemy jamming of our radars was experienced. Several instances of radar interference were reported, discussions of which have been separately forwarded. Interference in these cases probably was caused by VHF or other radio equipment harmonics, or BL equipment.

35. Enemy use of WINDOW has been the subject of separate reports. During night air raids on Saipan, the enemy repeatedly dropped large quantities of WINDOW which affected shipboard air search and fire control radars and night fighter air intercept radars at various times. Reasons for dropping WINDOW appear to have been:

(1) to conceal raid splits
(2) to conceal changes of course
(3) to cover retirements
(4) to provide cover in which to orbit while waiting to make a coordinated attack with another raid.
(5) possibly to prevent interception by our night-fighters.

The WINDOW retained its definition on the scopes of shipboard air search radars throughout its fall. WINDOW gave a considerable echo on the Mark IV radar of one ship, but the enemy plane was distinguished from the WINDOW by the fact that the fluctuations of the pips caused by the WINDOW were more rapid than thos caused by the plane. WINDOW appears to have had more nuisance than deceptive value; it hampered tracking slightly, but did not interfere appreciably with detection

X. TRAFFIC LOADS AND EMPLOYMENT OF CIRCUITS.

36. Traffic was fairly well distributed among the various CW circuits.

37. The Task Force 52 Common was used for partial FOX broadcast of a great deal of local traffic, but also handled an R-method load, and was not at any time used as a "FOX Broadcast" in the usual sense, that is, with serially-numbered messages. Traffic was heavy on this circuit from the breaking of radio silence on D-Day until the completion of the TINIAN operation. It was used not only as a tactical circuit, but to some extent as a "ships present" circuit, taking a load which might well have been assumed at an earlier date by the regular local harbor circuit on 355 kcs.

38. Task Force 53 used the Task Force Common 469 kcs as a regular FOX broadcast, with considerable success. It has been suggested by other echelons that there should be available both a low-frequency common for R-method and a machine-keyed FOX low-frequency broadcast by the Task Force Commander. The suggested circuits would be of value if frequencies, operators and equipment were available.

39. The Task Group Commanders circuit (2032 kcs and 2170 kcs) were also busy. In addition to their designed purpose, they cared for certain small-craft who could not use 441 kcs. Considerable ship-shore traffic was handled with shore headquarters over these circuits.

40. The Task Force Commanders circuit (4420 kcs) remained at a reasonably high state of efficiency throughout. There were few delays, answers were usually prompt and operation good. This circuit is considered to have been greatly improved over previous operations.

41. Long-range point-to-point service was good over several circuits. The direct circuit to NPM took most of the load with high efficiency. Continuous contact was maintained and traffic was handled at high speed. There were occasional lapses of circuit discipline which, however, in no way impaired efficiency in traffic handling since only two stations were on the circuit.

42. Attention was called by dispatch to a tendency to use forward area point-to-point circuits for handling "through" traffic to rear areas. Traffic should be allocated to those circuits best able to handle it in view of the overall picture. Poor circuit discipline also influenced traffic jams on the forward area point-to-point circuits with a number of stations thereon. Mention has already been made of relaying difficulties with shore stations at FORAGER objectives.

43. Besides the direct NPM circuit, some traffic was handled on the 4295 series but very little on the 4235 series. On many occasions the intercept watch on these circuits provided traffic some time before it was rebroadcast by NPM. Several times the headquarters ship, using "NDP9", answered NQO calls on 4235 series and relayed high-priority traffic which the originators would otherwise have been unable to deliver. The early establishment of the 4235 kcs ship-to-shore series ashore in forward areas is considered important.

44. Rebroadcast service by NPM was good on very high-precedence traffic. "Operational Priorities" were broadcast reasonably promptly, and the few "Urgents" sent by this command to NPM were usually being started out on the HOW FOX by the time transmission to NPM was completed. An improvement should be made in the time of delivery of Priority and Routine traffic. The handling of Deferred messages has degenerated to a point where air-mail is quicker.

45. On voice circuits, there was the usual tendency to use the handiest circuit, resulting in overloads for the more popular ones. This was not so marked as formerly, however, and it is believed that progress is being made toward educating personnel in the proper "functional" use of the various circuits. More thorough briefing of supervisors, preparation of circuit charts, etc., will aid in this regard.

46. The purposes of the various voice circuits as listed in the communication plan are self-explanatory. It is to be noted, however, that the LF and MF CW circuits were not used as much as they might have been for their designed administrative purposes, which would have partially relieved the voice load.

47. Voice circuit discipline was somewhat improved on some circuits. This is something that must be continually watched. No one should be allowed to use a microphone who is not properly trained in voice procedure. It is suspected that a large part of the trouble in this respect is caused by officer talkers. Proper voice procedure is simple to learn and use, and it must be insisted on in all commands. Great improvement will result from the adoption of the attitude that voice circuits, like CW circuits must "transmit dispatches", not "hold conversations." The exact transmission must be decided on, and preferably written down, before it is commenced.

COMMUNICATIONS

48. More thoughtfulness is needed on most voice circuits. This applies not to the use of "please" and "thank you", (which are out of order and should never be used) but to "allowing the other fellow a chance." Too often a transmission is broken in on before it can be receipted for, resulting in confusion when the later receipt is given. It should be understood by all hands that except in emergency or for traffic of higher precedence a circuit is not clear for new traffic until the sign-off "OUT" has been given by those already using it.

49. The TBS has been reduced by use of the SCR 608-610 equipment, but as already mentioned this is not a completely satisfactory substitute. If dual receivers and push-button-shift transmitters can be provided in the TBS range or higher, they will be a great improvement.

50. The only noted attempt at jamming was on the Local Air Warning circuit, and it was brief. This circuit functioned satisfactorily, although there was considerable difficulty in lining up radar guardships on several occasions. Little use was made of the Fleet Air Warning until the Local was secured, when it took over the ASP load.

51. The local harbor circuit, 2716 kcs., was overloaded as usual, but served satisfactorily in spite of difficulties. It became the harbor Air Warning upon securing of 3465 kcs late in the consolidation phase.

52. Previous discussions of circuit discipline have concerned themselves primarily with careless or ignorant errors. A new and serious problem of discipline arose in this operation with the deliberate flouting of regulations by voice operators who used the circuits, usually at night, to broadcast music, exchange personal conversation, "wise-cracks", profanity and obscenity. Much effort, only partially successful, was expended in the attempt to apprehend the unidentified offenders. Close supervision of operators and circuits by officers in all ships is required.

53. Home-made DF apparatus was constructed, and personnel were employed for many nights in "detective work". It may become necessary to provide additional DF equipment to stop this unauthorized transmission. So far little if any interference with traffic has resulted, but this tendency must be stamped out before it gets a foothold. This is necessary not only because of its effect on communication safety and efficiency but also to support general morale and respect for constituted authority.

DECLASSIFIED

XI. SHIPBOARD FACILITIES AND THEIR USE.

54. New antenna arrangements improved performance of equipment in the ROCKY MOUNT. Basically, transmitting antennas are now well aft and are short, while receiving antennas are forward. Interference has been much reduced. It will probably not be completely eliminated as long as we must handle so many signals in so little space. Constant care is necessary in turning and adjustment and in the selection of equipment in proper locations for certain frequencies in order to minimize this difficulty.

55. Rearrangement of voice circuit equipment would be desirable in many transports. Special arrangements were made for communication facilities in control craft, and consideration is now being given to various problems, including communications, of this type of craft with a view to their improvement.

56. Coding and message-center space was adequate in the headquarters ship for the available personnel. More personnel and more space could have been very profitably used.

XII. COMMUNICATIONS OF ASSOCIATED ACTIVITIES.

57. Communications provided for control of Naval Gunfire were adequate. Sufficient frequencies were provided for the various parties, and shifts were efficiently made.

58. It has been repeatedly recommended that destroyers and cruisers have additional voice equipments to enable them to man promptly all required circuits. It is understood that TCS equipments and TBK modulators will soon be placed in all such ships. A lighter-weight pack set is needed by SFC parties and ALP's.

59. Support Air Communications were very successful and no difficulties were reported. The use of VHF for Support Air Direction is desirable.

XIII. RECOMMENDATIONS.

60. It is recommended:

(a) That the Waipio Amphibious Communication Training School and special radar maintenance courses at the Pacific Fleet Schools be continued and expanded.

(b) That efforts be continued to replace SCR 608-610 equipment with more suitable types in a higher frequency range.

COMMUNICATIONS

(c) That the principles embodied in CentComTWO be continued as the basic communication plan; and that insofar as practicable supplementary details be issued as inserts thereto rather than as separate documents.

(d) That tender-supply and maintenance ships for electronic equipment be provided to service forces in the forward area; and that until they are available additional stocks of spare parts be provided in ships present and well distributed in forward areas.

(e) That development of MAN equipment and its use be continued.

(f) That ship-shore radio teletype be developed and installed in headquarters ships.

(g) That the development of teams of radar guardships be adopted as a standard principle to provide screening in depth.

(h) That broad-band directional antennas be provided for radar search intercept receivers.

(i) That SP radars be provided for headquarters ships as soon as possible.

(j) That radio discipline be strictly enforced, guarding against not only thoughtless, careless and ignorant, but also frivolous and malicious violators.

(k) That all vessels which are to operate with the Amphibious Forces be furnished necessary SCR 608-610 equipment in rear areas.

(l) That efforts be continued to improve arrangement and adjustment of communication and radar equipment in all types of vessels.

(m) That renewed effort be directed toward improving the ability of ships to detect and track low flying aircraft.

(n) That all services and all elements thereof make determined and ingenious efforts to develop methods of reducing the number of frequency channels required during assault operations and large scale action against the enemy.

ANNEX

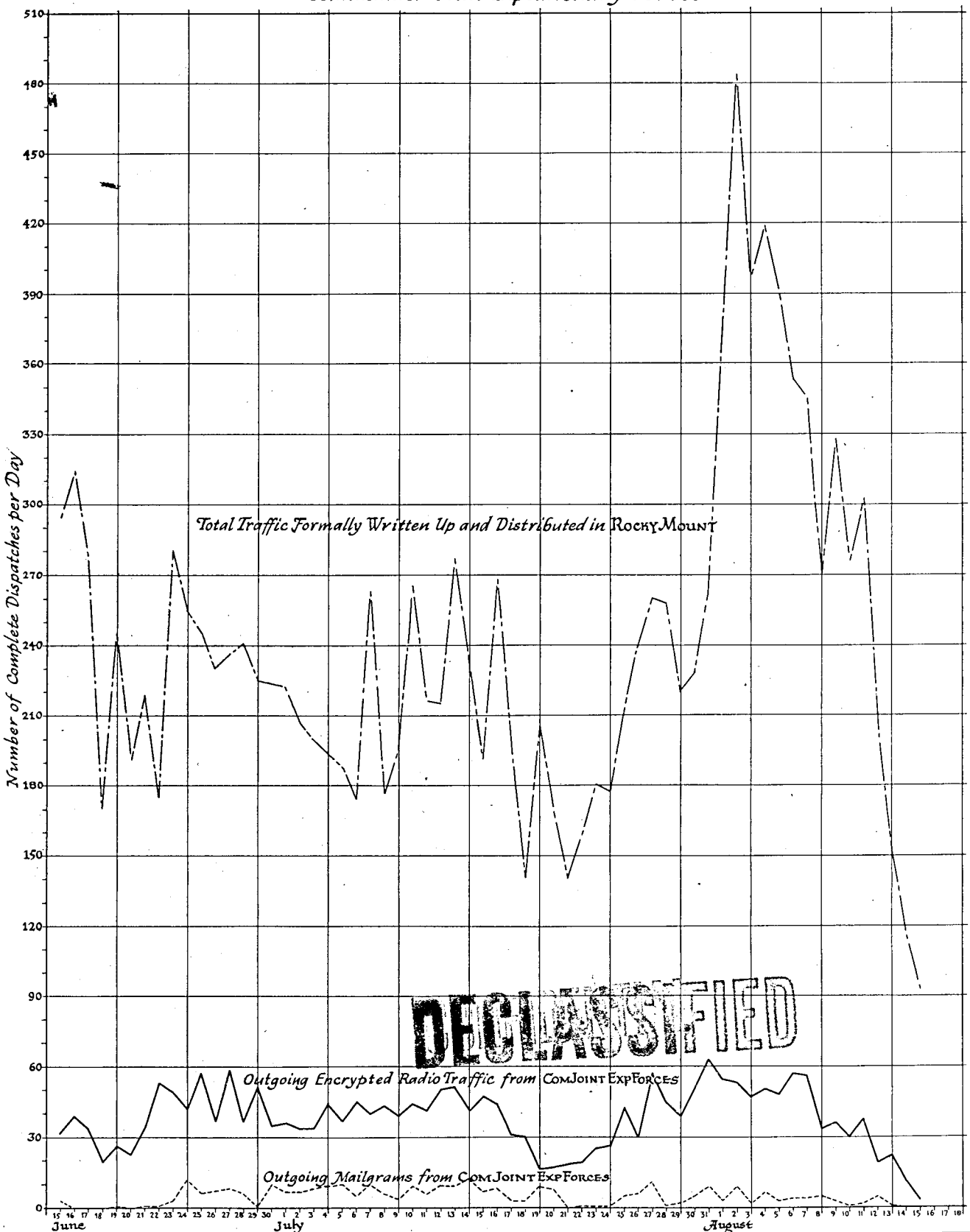
ENCLOSURE (J)

1 - Traffic Load Graph.

Annex 1

~~Appendix 1~~ to Enclosure J
Commander Joint Expeditionary Force
Report of Forager Operation

TRAFFIC LOAD
FORAGER OPERATION
Commander Joint Expeditonary Forces



Joint Expeditionary Force (TF-51)
Office of the Commander
U.S.S. ROCKY MOUNT, Flagship
August 29, 1944.

ENCLOSURE (K)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION
(A) MEDICAL REPORT FOR SAIPAN OPERATION

1. On D-day (June 15th) nineteen APA's, five AP's, six AKA's and three LST's were available at TEARAWAY for evacuation of casualties. The three LST's had been especially equipped with supplies and personnel to receive casualties from LVT's in LST areas, ABLE and BAKER, for transfer to APA's, until such time as APA's would be able to enter area THREE. The plan was to place one LST in center of LST area ABLE and BAKER, and the third LST to relieve whichever LST received 100 casualties first. The first casualties were received on board the LST's about 1040; and in less than two hours both LST's had over two hundred casualties on board and the third was filled soon after, necessitating transfer of the remaining casualties direct to APA's.

2. Between 1040 and 1500 on D-day, seven hundred and eleven casualties were received aboard the transports. During the next twenty-four hours, seventeen hundred and fifteen were received aboard the transports. The following day and additional seventeen hundred and forty-four were evacuated to the transports. By this time several APA's had over two hundred casualties on board, and were forced to use other than medical department personnel to handle the casualty load. Each APA had from four to six medical officers, and thirty to thirty three corpsmen attached, but due to absence of beach party personnel this was not adequate. The willing cooperation of ships' companies, SeeBees, and embarked troops, in casualty handling was outstanding and without doubt saved many lives.

3. The three LST, equipped as casualty carriers, handled 1549 casualties and performed twenty seven surgical operations. Many casualties were evacuated to these LST's after transports were able to take stations in Area THREE, the distances from beach being much shorter to LST than to transports.

4. Considerable difficulty was experienced in evacuating casualties on D and D plus one day, due to a moderate ground swell. Casualties could not be loaded or unloaded at the ramp of LST's as planned; but had to be hoisted over the side. The SeeBees, on one LST, rendered valuable service by hoisting casualties with cherry pickers loaded on deck.

5. The hospital ships SOLACE and BOUNTIFUL arrived on D plus three and evacuated [illegible] casualties. This, together with the gradual decrease of casualty rate down to 500 per day, helped to relieve the overload on medical facilities of the APA's.

(A) MEDICAL REPORT FOR SAIPAN OPERATION

6. During the first week of the assault all our Red, Blue and White casualties, seriously wounded prisoners of war, and seriously wounded civilians were evacuated to the ships of the force. All casualties able to return to duty were sent back to their organization during this period. A division of AP's was used for retaining all White casualties within the area until able to return to duty or to hospital facilities ashore.

7. On D plus six Group A transports retired from the objective, evacuating 1474 Red and Blue casualties. On D plus seven Group B transports evacuated 1400 Red and Blue casualties. On D plus eight the RELIEF and SAMARITAN evacuated 1355 casualties. On D plus ten transports of the reserve group evacuated 675 casualties.

8. The critical stage of evacuation occurred from D plus eleven until the securing of the island. At this time the transports had withdrawn, leaving only the CAMBRIA, ROCKY MOUNT, Hospital Ships and assorted XAP's on which to evacuate casualties from the area. The XAP's capacity was limited, due to lack of medical personnel, and the CAMBRIA and ROCKY MOUNT were remaining in the area. The hospital facilities ashore were loaded to near capacity with civilians, prisoners of war, and landing force casualties able to return to duty within 30 days. The casualty rate at this time was average about 500 per day and the numbers of sick from Dengue, dysentery and catarrhal fever were increasing. Hospital facilities ashore were expanded by utilizing cots from LST's and combatant vessels. Personnel ashore was augmented by four medical officers and twenty corpsmen from the CAMBRIA and LST's in the area. Fortunately the casualty rate decreased, and no epidemics occurred during this crucial period.

9. On D plus eleven to D plus fifteen, 434 casualties were evacuated on AK's and XAP's. The BOUNTIFUL arrived on D plus eleven and evacuated 522. On D plus fourteen the SOLACE evacuated 543. On D plus eighteen the SAMARITAN evacuated 505. On D plus twenty-four the RELIEF evacuated 680.

10. On D plus nine air evacuation was established from ISELY Air Field, and 860 casualties were evacuated to the Marshalls via this route during the remainder of the operation. During the early stage of air evacuation, planes were not supplied with medical attendants, nor was a flight surgeon available for giving advice as to whether or not patients could sustain an air flight. Several serious casualties died enroute or shortly after arrival at destination. A flight surgeon with adequate medical attendants should be provided for air fields at the objective to supervise air evacuation.

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

(A) MEDICAL REPORT FOR SAIPAN OPERATION

11. Total casualties evacuated via ships were 9546. Of these 414 were seriously wounded prisoners of war. Total casualties reported by Northern Troops and Landing Force TEARAWAY operation:

Killed in Action	3100
Wounded in Action	13099
Missing in Action	326
Total	16525

A list of daily cumulative totals and daily totals of casualties is appended.

12. The medical supplies, as a whole, were adequate. The transfer of certain strategic items from ship to ship, and ship to shore, was necessary. The greatest shortage was in litters. During the early phases of the operation, due to the large number of casualties, there were not enough to keep the beaches supplied and still have enough for exchange at the ships. An additional fifty litters per APA is necessary to maintain adequate litter exchange where landing force evacuation lines are as long, and the casualties are as heavy as they were at SAIPAN.

13. Pentathol sodium, tincture of merthiolate, intravenous saline and glucose, plasma, sulfadiazine, surgical gauze, crinolin, X-ray film and penicillin were items in which intership transfer was necessary. The AP's and XAP's evacuating casualties from the area required most of the transfer of supplies. There was a short interval, early in the operation, when penicillin was not available. The one hundred ampules obtained by the Flag Ship from hospitals at the start of the operation were used up prior to resupply via air. Penicillin had not been made available for ships through routine channels prior to their departure for the objective.

14. A shortage of tetanus anti-toxin was experienced by landing forces early in the operation, due to a five percent tetanus morbidity rate among native and prisoner wounded. No shortage of gas gangrene anti-toxin was reported, in spite of the fact two percent of casualties aboard ships early in the operation had infections of gas forming organisms. Gas bacillus infection among the prisoner and civilian casualties was rare.

15. Large quantities of strategic medical supplies, not needed by ships retiring from the objective, were transferred to the flag ships for use in t[illegible]

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

(A) MEDICAL REPORT FOR SAIPAN OPERATION

16. While the hospital ships and COMSERONTEN replenished emergency items to a great extent; I believe the strategic items, as mentioned above, should be carried on AKA's and AGC's in the same quantities as ADA's, to act as reserve supply in the forward areas.

17. No unusual diseases were reported among the troops or ships personnel of the force. However, several cases of serious illness and death were reported from drinking what was thought to be Japanese liquors. Wood alcohol was found to be the cause of illness and death in some cases, and insect repellent in others. The insect repellent was contained in bottles closely resembling beer bottles.

ENCLOSURE (K)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

(B) CASUALTY LIST SAIPAN

CUMULATIVE DAILY TOTALS

	KIA	WIA	MIA	TOTAL	Daily TOTAL
D-Day	142	711*	0	853	853
D plus 1	343	2426*	0	2911	2058
D plus 2	461	3520*	0	4213	1302
D plus 3	568	4056*	0	4856	643
D plus 4	584	3875	1202	5661	1805
D plus 5	673	4415	1120	6200	539
D plus 6	758	4425	1219	6402	202
D plus 7	No report received.				
D plus 8	954	5055	1260	7269	867
D plus 9	967	5209	1200	7376	107
D plus 10	1098	5694	1218	8010	634
D plus 11	1295	6539	931	8765	755
D plus 12	1387	6932	840	9159	394
D plus 13	1474	7400	876	1750	591
D plus 14	1566	7855	984	10405	655
D plus 15	1661	8006	971	10458	53
D plus 16	1755	8473	789	11017	559
D plus 17	1791	8703	758	11252	235
D plus 18	1870	9093	706	11669	417
D plus 19	1920	9299	701	11920	251
D plus 20	2008	9726	692	12426	506
D plus 21	2101	9982	600	12683	257
D plus 22	2127	10130	583	12845	162
D plus 23	2206	10450	569	13225	380
D plus 24	2297.	11218	1225	14740	1515
D plus 25	2368	11522	1207	15097	357
D plus 26	2525	11555	1025	15105	8
D plus 27	2586	11814	971	15371	266
D plus 28	2608	11963	917	15488	117
D plus 29	2645	12020	861	15526	38
D plus 30	2782	12144	732	15658	132
D plus 31	2842	12197	621	15660	2
D plus 32	2856	12307	615	15778	118
D plus 33	2883	12459	576	15918	140
D plus 34	2889	12651	508	16048	130
D plus 35	2958	12765	406	16129	81
D plus 36	3026	12854	394	16274	145
D plus 37	3049	13049	365	16463	189
D plus 38	3055	13096	365	16516	53

(B) CASUALTY LIST SAIPAN

CUMULATIVE DAILY TOTALS

	KIA	WIA	MIA	TOTAL	Daily TOTAL
D plus 39	3055	13101	365	16521	5
D plus 40	3060	13101	365	16526	5
D plus 41	3059	13068	355	16482 loss of	-44
D plus 42	No report	received.			
D plus 43	3059	13068	355	16482	0
D plus 44	3061	13083	344	16488	6
D plus 45	No report	received.			
D plus 46	3100	13099	326	16525	37
					16569
Note: Less decrease of 44 on D plus 41 due to revision of lists					44
				16525	16525

* Casualty figures from wounded on transports. No reports from Northern Troops and Landing Force were received for first four days.

(C) CASUALTY REPORT FOR TINIAN OPERATION

18. On Jig Day (July 24) six APA, two AP's, two LST, one APH and one AH were availalbe for casualty evacuation from the TINIAN beaches. The two LST's had been especially equipped with medical companies from the Landing Force. One thousand beds had been made available in hospital installations on Saipan. The plan was to evacuate all White casualties to LST's, and then via LST's to White beaches on Saipan, for transfer to hospitals on that island. All Red and Blue casualties to be evacuated direct to ships.

19. Casualties were light and less than five hundred were received aboard ships during the first three days. A rough sea developed early in the operation and rendered casualty evacuation to ships difficult. Only one LST was used and it received 145 casualties.

20. Air evacuation from Tinian to Saipan was established on Jig plus six and the major portion of casualties were evacuated via this route. The TRYON, which had been receiving casualties off White beach Tinian, returned to Saipan anchorage when the weather prevented evacuation direct from the objective. The casualties were then flown to Saipan and transferred to hospital ships at the Saipan anchorage where the sea was not so rough.

21. On Jig plus four, the JAMES FRANKLIN BELL, FULLER and JOHN LAND retired from the area evacuating 276 casualties. On Jig plus seven, the TRYON evacuated 412 casualties. On Jig plus eleven days, the RELIEF evacuated 385 casualties. One or more hospital ships were available throughout the operation. The SAMARITAN was present as the assault troops were being withdrawn, but had only 175 casualties on board at that time.

22. The total casualties evacuated by ships during the Tinian operation was 1379. Of this number 131 were wounded prisoners of war. Total casualties Northern Troops and Landing Force Tinian operation:

Killed in Action	290
Wounded in Action	1515
Missing in Action	24
Grand Total	1829

The daily cumulative casualty report is appended.

23. No shortages of medical supplies were reported during the Tinian operation. However, it was necessary to furnish a considerable amount of supplies from the flagship and hospital ships to XAP's evacuating the assault troops at the conclusion of operation.

24. No unusual diseases occurred during this operation.

(D) CASUALTY LIST TINIAN

CUMULATIVE DAILY TOTALS

DATE	KIA	WIA	MIA	TOTAL	DAILY TOTAL
J Day	15	225	0	240	240
J plus 1	74	188	28	290	50
J plus 2	159	441	32	632	342
J plus 3	No report received.				
J plus 4	No report received.				
J plus 5	124	594	33	751	119
J plus 6	No report received.				
J plus 7	172	904	31	1107	356
J plus 8	No report received.				
J plus 9	208	1122	32	1362	225
J plus 10	235	1310	27	1572	210
J plus 11	262	1399	25	1686	114
J plus 12	277	1491	26	1794	108
J plus 13	286	1496	25	1807	13
J plus 14	291	1510	24	1825	18
J plus 15	288	1509	23	1820	loss of 5
J plus 16	290	1515	24	1829	4
					1834
					- 5
Note: Less decrease of 5 on D plus 15 due to revision of lists				1829	1829

(E) MEDICAL REPORT FOR GUAM OPERATION

25. Sixteen APA, four AP's, one APH and two LST's were available on W Day (July 24), for evacuation of casualties. The plan to use LST's for transfer of casualties to APA's was not necessary at GUAM, as the transports were able to close the beach for direct transfer early on W day.

Anticipating heavy casualties, the APA's leaving the area early were loaded first; holding an AP especially equipped for evacuation, and an AH for use after the combat transports had retired from the area. These two ships were also used to retain White casualties until the landing force medical facilities were prepared to receive them ashore.

26. Casualties were lighter than anticipated and evacuation facilities at no time were overtaxed. A hospital ship arrived on W plus three, and from then on a hospital ship was available until the assault phase was over. The total number evacuated up to August 15th by hospital ship was 1632. The following is a list of casualties evacuated from beaches to ships by days.

July 21	836	August 1	44
July 22	242	August 2	39
July 23	343	August 3	114
July 24	193	August 4	79
July 25	184	August 5	139
July 26	414	August 6	75
July 27	398	August 7	123
July 28	249	August 8	89
July 29	280	August 9	69
July 30	109	August 10	57
July 31	59	August 11	49
		Total	4084

Total casualties reported by Southern Troops and Landing Force:

Killed in Action	1217
Wounded in Action	5722
Missing in Action	327
Grand Total	7266

A list of cumulative daily total casualties is appended.

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

(E) MEDICAL REPORT FOR GUAM OPERATION

27. No shortages of material or personnel were reported during the operation. The policy of retaining as much strategical medical supplies in the area as could be spared from retiring transports, was carried out during this operation. One medical companys' field equipment was landed from the BOUNTIFUL at GUAM.

28. The problem of caring for wounded civilians on this operation was negligible, most of the natives had been confined in an internment camp by the Japanese during the initial assault phase, and upon release reported to our forces uninjured.

29. No unusual diseases were reported during operations on GUAM.

30. The total casualties to Naval Units of Commander Task Force FIFTY ONE reported were:

Killed in Action	127
Wounded in Action	388
Missing in Action	32
Grand Total	514

A list of these casualties by units and type of ships is appended. This list is not considered to be complete as a number of ships leaving the area failed to report to this command.

(F) CASUALTY LIST GUAM

CUMULATIVE DAILY TOTALS

DATE	KIA	WIA	MIA	TOTAL	DAILY TOTAL
W Day	22	523	0	545	545
W plus 1	No reports received.				
W plus 2	355	1828	262	2445	1900
W plus 3	414	1828	262	2504	59
W plus 4	435	2346	209	2990	486
W plus 5	580	2829	220	3629	639
W plus 6	741	3198	239	4178	549
W plus 7	862	4133	336	5313	1153
W plus 8	908	4360	324	5592	261
W plus 9	948	4709	290	5947	355
W plus 10	1001	4912	302	6215	268
W plus 11	No reports received.				
W plus 12	1012	4910	305	6227	12
W plus 13	1048	5036	306	6390	163
W plus 14	1081	5181	315	6577	187
W plus 15	1107	5286	330	6723	146
W plus 16	No reports received.				
W plus 17	1128	5373	331	6832	109
W plus 18	1144	5467	326	6937	105
W plus 19	1174	5597	336	7107	170
W plus 20	1204	5674	329	7207	100
W plus 21	1209	5696	327	7232	25
W plus 22	1217	5722	327	7266	34
				7266	7266

(G) CASUALTY LIST SHIPS PERSONNEL

SAIPAN OPERATION

	KIA	MIA	WIA
Transports Group ABLE (52.3)	1	0	15
Beach Parties, Group ABLE	3	0	17
Transports, Group BAKER (52.4)	2	0	21
Beach Parties, Group BAKER	0	19	7
Transports Reserve Group (51.18)	1	0	1
Beach Parties, Reserve Group	0	0	0
Battle Ships, Support Group	10	0	20
Destroyers	2	0	7
Carrier Groups	13	13	23
LSTs	1	0	19
LCTs	10	0	11
LCIs	2	0	3
PC(S)	1	0	31
Underwater Demolition Teams	5	0	9
Totals	51	32	184

TINIAN OPERATION

Battle Ships	44	0	130
Destroyers	19	0	47
Totals	63	0	177

GUAM OPERATION

Underwater Demolition Teams	1	0	5
LCIs	6	0	18
SC	3	0	4
Beach Parties	3		
	13	0	27

ENCLOSURE (K)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

(H)) RECOMMENDATIONS

31. It is recommended that the medical personnel of APA's be augmented by one medical officer and eight corpsmen from garrison force personnel. These personnel should be retained at the objective on departure of the transports.

32. It is recommended that medical field equipment be placed on the hospital ships prior to each operation. The field equipment on one hospital ship had been removed at Noumea prior to this operation.

33. It is recommended that the medical company field equipment on the hospital ship be augmented with tents and cots for landing at the objective. Medical personnel from garrison force manning field equipment should when practicable be brought in by hospital ships and retained at objective prior to departure of combat transports from the area.

34. It is recommended that as soon as air evacuation is established at the objective a flight surgeon with adequate medical attendents be provided to supervise air evacuation.

35. It is recommended that the medical allowance of strategic items be increased on AGC's so that these vessels which remain a long time at the objective, may act as sources of emergency supply both for ships and for landing force medical organizations.

[redacted]

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ENCLOSURE (L)
COMMANDER JOINT EXPEDTIONARY FORCE REPORT OF FORAGER OPERATION

CASUALTIES TO SHIPS

I. DAMAGE DUE TO ENEMY ACTION.

1. At 0910 K June 14, the CALIFORNIA was hit by a probable 105 mm. howitzer shell, during the bombardment of SAIPAN. The shell exploded on the starboard side of the fire-control platform, damaging:

(a) Main battery director No. 1
(b) Forward Mk 8 radar.
(c) After Mk 8 radar.
(d) Forward SG radar.
(e) Target range receivers in fire control tower.
(f) Two bridge TBS units.
(g) VHF transmitting antenna.
(h) SK radar.
(i) The ship's structure and electrical leads in the vicinity.

2. On June 14, the BRAINE was hit by a single six inch shell from a shore battery while on an anti-shipping mission off TINIAN HARBOR. Number two torpedo mount and the after fireroom were put out of commission, electrical leads to No. 2 and 3 40 mm. directors were cut, and a fire main riser sheared off.

3. While steaming at 15 knots in the early morning of June 15, the ST LOUIS lost her No. 3 propeller and 39 feet of tail shaft, reducing her sustained speed to 25 knots. This is believed to be the result of previous damage to the shaft sustained from a near bomb hit on February 14.

4. At 0912 K June 15, the TENNESSEE received four hits from a 4.7 inch shore battery on the north end of TINIAN, putting 5"/38 mount No. 7 out of action and causing otherwise superficial damage.

5. At 1800 K June 17, during an aerial attack by four Kates on Task Group 53.16, LCI 468 was hit by a torpedo causing extensive damage, and was taken in tow, having lost all power. She subsequently sank.

6. On June 17, LST 84 received non-vital damage from a bombing attack. A considerable fire started, but this was extinguished.

7. Between 1830 and 1900K June 17, the FANSHAW BAY was hit aft by one bomb estimated at 100 kilograms, during an attack by Kates. The after elevator was disabled, electrical cables aft and the arresting gear were put out of commission; the fire main was ruptured flooding compartments C203L and C303, resulating in a trim of 5 feet down by the stern; minor hull leaks and superficial damage were caused.

8. Before dawn on June 18, PHELPS received two 8" hits from shore batteries near the southern edge of GARAPAN, one exploding in the wardroom with extensive but not serious damage; the other in No. 3 fireroom with serious damage to No. 3 boiler, and minor damage to steam lines and No. 4 boiler. Her speed was reduced to 27 knots.

9. At 1650 June 18, three tankers of Task Unit 16.7.1 were damaged in an attack by ten planes. The NESHANIC was set afire by a bomb hit, starting a fire which was brought under control in about an hour; other damage was superficial. The SARANAC was hit aft with one bomb and lost all power; temporary repairs were made which enabled her to proceed to ENIWETOK at nine knots. The SAUGATUCK received minor damage consisting of fragment holes above the waterline; the after port fueling station was put out of commission. (Note: These vessels are included although not in Task Force 51 since at the time damage was sustained they were acting directly in support of this Task Force.)

10. On June 19, the YMS 323, while conducting survey operations off TANAPAG HARBOR, received five direct hits from a 4.7 inch battery on MUTCHO POINT. The ship was holed in two places below the waterline and a fire started forward near the magazine. The projectiles were armor-piercing, and did not explode. The fire and flooding were brought under control with the assistance of salvage tugs.

11. At 1955K June 22, the MARYLAND was hit by a torpedo from a low flying aircraft in an attack on ships in the vicinity of SAIPAN. The projectile exploded on the port side, frames 8 to 10, causing flooding from the bow to frame 20 in the double bottoms and from the bow to frame 15 below the second deck; and rupturing the gas system. Speed was reduced to 10 knots.

12. At about 0045 June 23, several bombs were dropped in a high altitude bombing attack which caused minor damage to LCT 998, PC(S) 1461, PC(S) 1402 and the PHAON.

13. About June 23, LST 119 was hit by a projectile which opened a 3 by 4½ foot hole at the waterline, flooding compartment C419V, and damaging the steering gear and electric wiring.

14. In action with Japanese barges, which sortied from TANAPAG HARBOR the morning of June 26, LCI 438 received 37 mm. fire which caused 12 holes in hull; damaged the fire main, starting batteries, radar, and refrigerator; and resulted in the loss of one anchor and cable. In the same action LCI 456 received slight damage to her winch and refrigerator.

15. During an air attack the evening of June 26, an enemy plane crashed into a cargo boom on the MERCURY, dropping a torpedo as the plane disintegrated. The torpedo penetrated a living compartment where the air flask exploded causing considerable superficial damage. The head did not arm and consequently did not explode.

16. During the assault on GUAM on July 21, SC 1326 and LCI 365 sustained slight material damage from minor calibre hits.

17. On July 24, while supporting the assault on TINIAN, the COLORADO received 22 hits, believed to be from a 6 inch shore battery, putting one 5 inch gun out of action; damaging two other 5 inch guns; putting the catapult out of commission; flooding two blister fuel oil tanks with a waterline hit; putting one 40 mm. quadruple mount out of action and damaging another quadruple and one twin mount; putting two 20 mm. guns out of action; putting one Mk 51 director out of action; and causing many holes from direct hits and fragments.

18. On July 24, while supporting the assault on TINIAN, the NORMAN SCOTT received six 6 inch hits from shore batteries, putting out of action one 5 inch and one 40 mm. gun and 35 inch searchlight, demolishing No. 1 stack, damaging gyro, radars, ECM, sound gear, electrical circuits, and causing several hundred holes in the superstructure.

19. On the morning of July 24, LCI 439 and LCI 366 were hit by shore fire while making strafing runs on the south side or OROTE PENINSULA, GUAM. No details are available.

20. About 1900K July 24, LST 481 was hit by minor calibre shore fire from GUAM, starting a fire which was brought under control within a few minutes.

II. ACCIDENTAL DAMAGE.

1. On June 9, the CLAY fouled a water barge while clearing the side, puncturing the hull plating at the main deck level.

2. While enroute to ENIWETOK, the TALBOT was in collision with the PENNSYLVANIA, buckling the entire forward section to about

frame 10 and turning back the stem to frame 2. Leaks were opened into peak tanks, chain locker, and the lower sound room.

3. At 0540K June 18, both barrels of a 5 inch mount No. 3 on the CALIFORNIA were damaged when struck by 40 mm. HE projectiles from her own guns during an air attack. The right barrel failed to pass bore gauge, and both barrels were gouged.

4. On the night of June 28, a submerged log struck the sound dome of the WATERS, damaging it so that it could not be operated properly.

5. The DICKERSON sustained boiler casualty on two occasions, June 23, and July 22, both due to boiler tubes carrying away; the second put the boiler out of commission.

6. The BALLARD sustained a boiler casualty due to low water on the morning of June 29. Fireside tubes were badly warped and the steam drum possibly damaged putting the boiler out of commission.

7. On the night of July 17, LCI 348 went aground a coral pinnacle off ASAN, GUAM, and was pulled off by the APACHE the following day, suffering slight damage to bottom, propellers, and rudder.

8. The SEA FLIER grounded at ENIWETOK, and was refloated on July 28, needing renewal of bottom plating aft, and with propelling machinery out of line. She was towed back to PEARL HARBOR.

9. At 2200K July 22, NEWCOMB struck a semi-submerged object believed to be timbers attached to a heavy wire cable, which wrapped around her shaft. Subsequent dry-docking indicated no damage to propellers. The starboard bilge keel was torn loose at tne leading edge.

10. On July 25, the RINGGOLD struck a pinnacle at GUAM, bending one blade of the starboard propeller badly; slight dents were made in the other blades, and negligible leakage resulted.

11. In a heavy squall accompanied by westerly swells on July 29, YOGL's 11 and 8 went aground on the reef off the southern beaches at SAIPAN, causing only minor damage. LCC 73 grounded with considerable damage, and was successfully salvaged. LST 340 went aground on TINIAN with extensive flooding and hull damage; salvage operations were undertaken. When she was refloated her damage was so extensive she was not deemed worth repairing. She was beached at GARAPAN to be used as a station ship and barracks.

12. On the night of 7-8 August, the SWALLOW struck floating debris during night cruising, damaging her starboard shaft and limiting her speed to 5½ knots.

13. On August 8, SC 1328 damaged two propellers on the reef while acting as control vessel at GUAM.

14. About August 11, SC 1049 bent her port propeller.

15. About 20 LCT's were holed forward during beaching on reefs in rough water.

III. CASUALTIES IN REHEARSAL PERIOD.

1. During the night of May 14, LST's 71, 390, and 485 lost LCT's 999, 984, and 988 respectively through self launching in fairly heavy seas. LCT's 988 and 984 were sunk. LCT 999 received only moderate damage and was towed back to PEARL HARBOR.

2. During bombardment of KAHOOLAWE, the COLORADO went aground on an uncharted pinnacle off the western end, receiving severe underwater damage, including a large hole on the port side forward, and a break in the keel. Temporary repairs were made by the navy yard in time to sail as scheduled.

3. LST 29 and LCI 79 received underwater damage by grounding during operations, and were towed to PEARL HARBOR for repairs.

4. LST 246 was damaged when she struck an LVT.

5. During the rehabilitation period in PEARL HARBOR, a fire broke out as a result of an explosion of chemical mortar ammunition on LST 353; and spread to nearby ships. LST's 39, 43, 69, 179, 353, and 480, and LCT's 961, 983, and 96 were destroyed.

IV. SUMMARY

1. One LCI was sunk, and a total of 27 vessels were damaged by enemy action, inclusing 4 OBB's, 1 CL, 1 CVE, 3 DD's, 3 LSTs, 1 ARS, 1 AK, 3 AOs and 10 smaller craft. Of these damage was severe, though not dangerous, on 2 OBBs, 1 CL, 1 CVE, 1 DD, 1 AO and 1 YMS. These ships in general had to be repaired immediately, and were unable to continue their missions. Damage was less serious on 2 OBBs, 2 DDs, 1 AK. 1 LST, and 2 LCIs. These ships required repairs, but their battle efficiency was not seriously reduced. The remaining vessels sustained only slight material damage.

2. 17 vessels were damaged from accidental causes. In only three cases was damage serious enough to prevent continuance

of duty. In the others, the damage was such as could be repaired locally sufficiently to carry out the assigned missions with reasonable efficiency. The causes of these accidents may be classed as follows: Boiler casualties, 2. Damage from gunfire, 1. Collision, 2. Grounding, 5. Heavy weather resulting in grounding, 2 (in addition to 5 simple groundings). Floating debris, 3.

In addition to the vessels listed, minor damage was sustained by many LCTs and other landing craft in landing on the reefs and beaches; and by all types as a result of going alongside other vessels under unfavorable weather conditions.

3. Six LST and 5 LCT were lost in the rehearsal and rehabilitation period prior to the start of the operations. Five vessels including 1 OBB, 2 LST's, 1 LCT and 1 LCI were damaged in this period.

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ENCLOSURE (M)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

LOGISTICS

A. THE PROBLEM OF SUPPLY

1. At the outset of the FORAGER Operation, it was apparent that one of the most serious problems to be solved was that of logistics. The operation called for a long trip to the objective, followed by an extended stay at points a thousand miles from the nearest resupply base. Furthermore, amphibious landing operations now require the employment of hundreds of small craft; from LCVPs to LSTs, almost all of which have limited endurance in matters of fuel, water, and provisions. Likewise, the arrival of non-self sustaining merchant ships, containing garrison units, increases the amount of supplies required.

2. An additional supply problem was created by the fact that the number of oilers, provision ships, and water barges available for forward movement to resupply our forces was known to be limited, and it was expected that there would be long periods during which our forces would be required to be self-sufficient.

B. LOGISTICS AT THE STAGING AREA

3. In order to enable the many small craft in the Task Force to complete the long trip from the HAWAIIAN area to the objective, and to insure thst all ships were supplied to capacity with necessary logistic items for the stay at the objective, all ships of Task Force 51 were fueled, watered, and provisioned at one of the three staging points: ENIWETOK, ROI, and KWAJALEIN, in accordance with a schedule set up in the Operation Plan. The dates of arrival of various Task Units at the staging areas were staggered slightly in order to relieve the congestion and expedite servicing.

4. It was expected that all craft smaller than LSTs would require fuel and that they plus LSTs would require water and provisions at the staging areas. In addition, it was considered advisable to "top off" the larger ships with whatever supplies and water remained at the staging points after the small craft were cared for, in an effort to lengthen the endurance of all vessels at the objective.

5. The logistics schedule included in the Operation Plan divided the ships present at each staging point into logistic groups, whose requirements were to be handled by the senior officer of each group. The senior officer of each "logistic group" was to submit to Service Squadron TEN, by airmail, prior to his departure from the HAWAIIAN area, the order of fueling and watering for the vessels of his group. This arrangement was not entirely satisfactory in practice, however, for two reasons. First, due to the mixture of ships in each "logistic group", there was considerable doubt as to which

officer was the senior one of a given group. Also, very few groups submitted their logistics schedule in advance to Service Squadron TEN. As a result, it became necessary for the SOPA, together with the representatives from Service Squadron TEN, to set up an almost entirely new fueling and watering schedule after arrival at the staging points. Despite this difficulty, and the large number of ships requiring services, all ships were refueled, watered, and provisioned expeditiously, due to the able assistance of Service Squadron TEN.

6. This exercise confirmed the necessity for an overall logistics schedule when a large number of craft are to be serviced in a short time at a staging area. It is now felt, however, that such a schedule can best be set up by the Service Force representative at the staging areas, provided that he is furnished, well in advance, a list of ships requiring logistics, together with their arrival date and expected length of stay. The Service Force representative at the staging area is in the most advantageous position to determine the availability of oilers, water barges and provision ships, and to provide for the rapid and equitable distribution of facilities.

C. ESTABLISHMENT OF THE LOGISTICS SECTION

7. To cope with the many logistics problems caused by the size of the operation, it was necessary to set up a complete Logistics and Maintenance Section on the staff of CTF 51. The section consisted of a coordinating officer and four sub-groups as follows:

(a) Salvage Officer - detailed to TF 51 by the Commander Service Force.

(b) Logistics and Maintenance Group - comprising three staff officers responsible for fuel, water, provisions, and repairs.

(c) Gunnery Logistics Group - comprising the Force Gunnery Officer and his assistants.

(d) Aircraft Logistics Officer - the Force Air Officer.

8. The work of the Salvage Officer was independent of the remainder of the section; also the logistic duties of the Gunnery and Air Officers were subsidiary to their other duties. Therefore, the logistic aspects of their activities are covered in Enclosures (F), (H) and (L). This report is concerned with the work of group (b), which devoted its full time to "logistics proper".

9. From the beginning, it was assumed that throughout the operation large ships would be self-supporting except for fuel; that all small craft would require fuel and provisions, and that almost all small craft would require a constant re-supply of water.

Due to the large number and varied types of small craft, it was believed that they could best be serviced by assigning groups of them to ships of transport divisions present at the objective, which were to act as "mother ships", obviating the necessity for constant supervision of all craft by the SOPA. However, when almost all of the transports retired shortly after D-day, it became necessary for the small craft to request services from any ship which could and would provide them. Later, the transports arrived and departed from the area so rapidly that it became impracticable to employ the "mother ship" plan.

10. As a result, it proved desirable to divide the responsibility for servicing craft in accordance with their requirements rather than in accordance with their size; that is, all vessels, small and large, submitted their requests for fuel, water, and provisions to CTF 51 via their Type Commanders, and the available fuel, water and provisions were distributed in accordance with a daily schedule. This task required the full time of two officers, one determining the availability and distribution of fuel and water, the other concerned with provisions. On subsequent amphibious operations of increasing scope and duration, each Force and Group Commander will undoubtedly require the full-time service of at least two officers, and the part-time service of several others (as well as clerical assistance) for matters pertaining to logistics.

D. LOGISTICS AT THE OBJECTIVE

FUEL

11. Arrangement had been made by the Commander Service Force to have in the MARIANAS area between seven and ten fleet oilers available at all times for resupply of ships of the FIFTH Fleet. As soon as it was believed safe to anchor a fleet oiler at SAIPAN, CTF 50 arranged to send a fleet oiler there whenever requested by CTF 51. Each oiler was capable of providing black oil for the destroyer screen, whose fuel requirements were tremendous due to continuous screening operations, diesel oil for the DEs, LSTs and smaller craft, aviation gasoline for the seaplane tenders and the shore establishment, and small amounts of water. It remained at the objective until empty, retiring each night with the Retirement Group. Because of the proximity of the tanker operating areas and the cooperation of CTF 50 and CTG 50.17, there was never an occasion when this Force lacked either black or diesel fuel, during what might have proved a very awkward supply period.

12. A station tanker of the IX type was brought forward to the objective, arriving on D/20. This lessened the frequency of demands for fleet oilers, since this IX tanker was able to fuel as many as 15 destroyers per day, by not retiring at night. A second IX tanker arrived at D/38, followed by a third at D/48. The latter, a "white" type, carrying large amounts of diesel fuel and aviation gasoline, was used to furnish increasing amounts of gasoline to the airfields, and diesel oil to the small patrol craft remaining in the area at the

conclusion of the assault phase.

13. During the operation, attempts were made to fuel carriers alongside tankers at anchor, but these proved unsuccessful, due to the non-availability of suitable camels and the roughness of the sea at the anchorages. Carriers were fueled from a fleet tanker at anchor, using the astern method. The procedure employed was as follows: The tanker anchored ahead of the already anchored carrier, which had dropped a second anchor underfoot to reduce yawing. Then the tanker dropped back until the hose could be run from the stern of the tanker to the bow of the carrier. If necessary, the tanker then dropped a second anchor under foot to reduce yawing. The hose was floated from the tanker to the carrier, using a small boat to assist. Then a preventer was run from the stern of the tanker to the bow of the carrier, and the gasolene hose was run to the carrier clear of the water. (Any large ship could be fueled in the same manner. However, if a small ship were fueled in this manner it should anchor astern of the already anchored tanker. The hose used should be either 5-inch inflatable type, or standard 4-inch hose).

14. Occasion arose during the operation when carriers arrived at the SAIPAN anchorage in need of fuel and could not be supplied because the heavy seas, and lack of camels made alongside fueling unsafe. An IX type tanker was present, but lacked sufficient hose to attempt the astern method of fueling. In order that large ships may be fueled in an open roadstead even during heavy weather on future operations, it is considered extremely desirable that IX type tankers sent to the forward areas as station tankers be equipped with sufficient inflatable hose to permit them to fuel ships astern.

15. The arrival of heavy weather halted the fueling of the destroyer screen from tankers at the anchorage. The continuous demand for fuel was such that a substitute method was devised whereby a fleet tanker got underway at daybreak and steamed back and forth inside the destroyer screen fueling two destroyers at a time on each leg of her circuit. In that manner four destroyers could be fueled in every 4 hour round trip. This method had several advantages: (a) It was not necessary to send destroyers out to a tanker operating area to fuel, a procedure which would require the expenditure of considerable fuel and the weakening of the screen for a long period; (b) the entire screen could be fueled quickly by using a system of temporary reliefs, and (c), fueling operations at the objective were not slowed in the slightest by fairly heavy weather. In future operations if the screened area is adequate, not only can ships of all sizes come in to fuel in all weather, but also it may be possible to set up a tanker operating area inside the screen for the refueling of entire task groups.

16. Throughout the operation, ships of TF 51 were required to submit daily fuel reports to the OTC when underway and to the SOPA when at anchor. This was of great assistance in determining future requirements, but it was soon found that reports were submitted in many different forms, since each ship arriving at the objective submitted its reports in the form previously required by its task unit commander. Some reports listed fuel in barrels, some in percentage of capacity on hand, etc. To achieve greater uniformity in the future, it is recommended that all task force, task group and task unit commanders require all fuel reports to be submitted using the form specified in Article 3633, USF 10A.

WATER

17. As it was realized that no outside source of water would be available at the objective for many days after the initial landing, arrangements were made to service the smaller, non-self supporting craft from transports, LSTs and large combatant ships, In addition, excess water available in the large combat ships arriving at the objective was stored in LSTs for future use. Despite these efforts, the demand for water began to exceed the supply, due to three factors:

(a) The departure of many of the large ships from the area.
(b) The necessity for supplying large amounts of water to non-self sustaining merchant ships which arrived with troops.
(c) The arrival of a period of heavy weather which prevented daily collections of water from the remaining large ships.

18. By D/45, these three factors indicated that an acute water shortage was imminent and it was requested that a water barge be brought forward to relieve the situation.

PROVISIONS

19. It was evident from the start of the operation that due to the shortage of provision ships in the Central Pacific Area, there would be no fresh, and few frozen and dry provisions available for resupply of the forces at the objective. Therefore, the transports and merchant ships at the objective were called upon to supply provisions to the limit of their capacity. Also, all ships departing from the area were stripped of all provisions in excess of the amount required to reach their ultimate destination, plus a small reserve.

20. At D/28, the GIANSAR, a dry provision ship, arrived, and all ships in the area were refilled with dry provisions. At about D/50, a YF was broughtforward with 400 tons of frozen stores, and each craft present was given a limited amount of these stores. Thus, adequate amounts of dry stores were available, although fresh and frozen provisions and ship's service supplies were sorely missed. Requests for fresh and frozen provisions were received from ships of all sizes until the end of the operation.

LUBE OILS

21. An inventory of lube oil requirements at the objective for the period from D/20 to D/50 revealed that the screening destroyers present would require a total of 155 drums of engine lube oil (Navy Symbol 2190 T) and the AMs, LCIs, LCTs, PCs, and other small craft would require 200 drums of lube oil (Navy Symbol 9250). The number of drums of these types of oil which were available on fleet tankers arriving at the objective was far less than the amount required, and several urgent requests were made for more of these types of oil to be brought forward to the objective. Another type of lube oil proved to be in great demand following the many days of air raids: - Navy Symbol 2190 is primarily designed for use as lube oil, but is also usable in fog generators (see Enclosure (H)). As a result, a shortage of this type oil existed for sometime, and was not rectified until all air raids had ceased.

22. In future operations, where a large number of destroyers and diesel-burning craft are used constantly, it is essential that large amounts of lube oil of the above symbols be carried on board tankers scheduled to arrive at the objective, or be broughtforward in garrison shipping due to arrive not later than D/20. In addition, LSTs which have bulk stowage for lube oil (Symbol 9370), used in large quantities by DEs and other large diesel craft, must be cautioned to carry a full load of this oil, as its availability aboard fleet tankers is limited. Finally, before a ship leaves a rear area for a combat zone, the Commanding Officer should insure that it is provided with lube oil which is new and clean enough so that the ship will not suddenly require large amounts of lube oil for a complete change of oil shortly after arriving at the objective. A little forethought in such matters would have considerably lessened the drain on lube oil facilities during FORAGER.

E. RECOMMENDATIONS

23. It is felt that the problem of supplying fresh and frozen provisions on long operations is far from solved, and that forthcoming operations, which are to be considerably longer and larger in scope, will render this problem acute. Furthermore, the currently available dry stores are considered to be incomplete in items which might be used as substitutes for fresh and frozen provisions. Two solutions to this problem are suggested, and both require early consideration:

(a) The number of refrigerated provision ships in the Pacific area must be augmented to the point where at least two, and preferably three, are available to follow the assault forces and, by a rotation system, keep them supplied with frozen, and if possible, fresh provisions for a period of several months.

(b) If this is not feasible, serious attention must be given at the earliest possible moment to a study of the present "balanced" issue of dry stores, with an eye to revising the list in favor of much higher percentages of canned fruits, fruit juices, vegetables, dehydrated potatoes, and other items which may be substituted for fresh and frozen provisions.

24. Sooner or later in an operation conducted for long periods far from our own bases, the water shortage reaches an acute stage. In this operation, it came late; in the next one, with many more ships and men to be supported, it is bound to come earlier. Since a severe shortage rapidly appears even when all sources present are utilized to the utmost, as they were in this operation, it will not be sufficient to say "the transports will supply the small craft with water". There appears to be but one solution - water ships must be moved to the assault area closely following the assault forces, prepared to supply large amounts of water until water barges can be brought into the area. The assignment to the assault force of a Liberty type tanker, built as a water ship, would be of great assistance in handling this situation.

25. The above recommendations are of immediate concern, since they will affect the conduct of the next operation by this force. Their early consideration is urged.

[redacted]

CONFIDENTIAL

Joint Expeditionary Force (TF51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

DECLASSIFIED

ENCLOSURE (N)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

SHIP LOADINGS

1. All Assault Forces and the first echelons of Garrison Forces for FORAGER objectives were embarked under the direction of Commander Task Force 51 in two hundred troop and cargo carrying ships. Of these two were loaded on the West Coast, one hundred thirty in the HAWAIIAN area and sixty eight in the South Pacific.

2. Ships were divided by types and loading points as follows:

	APA	AKA	AP or XAP	AKorXAK	LSD	LST	APD	Total
Assault (HAWAII)	25	7	12	4	5	47	10	110
Assault (SOPAC)	16	5	4		3	32	2	62
Garrison (Hawaii)			5	6		9		20
Garrison (SOPAC)			2	4				6
Garrison (Coast)				2				2
	41	12	23	16	8	88	12	200

HAWAIIAN Area - Assault Transport Divisions

3. Embarkation in the HAWAIIAN Area was complicated by the fact that the SECOND Marine Division was encamped in HAWAII about seventy miles from that island's one small port and the FOURTH Marine Division at MAUI some twenty six miles from that island's one small port. The Corps Troops and accompanying Garrison Troops, and some of the special equipment attached to these Divisions, were on OAHU, as was also the TWENTY SEVENTH Infantry Division. Elements of attached Tank and Amphibian Tractor unit s were disposed on all three islands.

4. Upon the recommendation of the Force Commander, a Board composed of representatives of the Commander in Chief, U.S. Pacific Fleet, Commanding General FIFTH Amphibious Corps and other interested Commands, visited MAUI and HAWAII, surveyed loading facilities, and made recommendations for such harbor development work as could be accomplished prior to the loading dates. Both harbors were improved so that dock berths for loading four large ships and beach berths for four to five LSTs were available for simultaneous loading at each place.

5. Since no anchorage for heavy ships was available at KAHULUI and the beach and assembly areas at HILO were of limited capacity, it was decided that all heavy ships except LSDs would be loaded at dock. After conference with representatives of the Commanding General, FIFTH Amphibious Corps, the Divisions, and port authorities, a tentative loading schedule for heavy ships was issued on April 2, and on April 15 was made firm by issuance of Force Speedletter, serial 00470, a copy of which is attached hereto

SHIP LOADINGS

marked Annex 1. Ships of the Assault Transport Divisions were loaded in accordance therewith and all completed loading on time.

6. Commencing April 25, as they became available in the area, Transport Quartermasters of all ships and Commanding Officers of about half the ships proceeded by air to the Troop headquarters and consulted with Troop Commanders in preparation of final loading plans of their ships. Six of the Transport Division Commanders, and representatives of all others, visited Regiments and Divisions at their headquarters prior to commencement of loading to coordinate plans for the Transport Groups and Transport Divisions.

7. Some last minute changes in loading plans were necessary because of the unexpected radically different designs of conversion of the C2 type AP's. Upon their arrival just prior to loading date, it was discovered that these ships were not capable of loading as much cargo as other C2's employed by this force and that they could not stow any heavy lifts, there being no hatch opening under the thirty ton boom.

8. In order that the loading schedule might be met, and because of the extreme inexperience of ship's cargo handling personnel on the new AP's, permission was given to the Transport Division Commanders to make use of professional stevedores as necessary, although emphasis was placed on further and continuous training of the ship's personnel.

9. Eighteen hundred rounds of 8" and 6,480 rounds of 6" ammunition was distributed among ten of the ships and stowed to be accessible at any time for resupply of Fire Support Cruisers. Provision also was made for loading in accessible stowage in six of the ships of a total of 150,000 gallons of aviation gasoline, proportionate lubricating oil, and 1,500,000 rounds of .50 caliber aircraft ammunition for use of seaplanes and planes which might need to land at captured fields prior to arrival and unloading of the Garrison Forces.

10. After ALCHIBA was loaded and was enroute to OAHU, a machinery derangement occurred which was to prevent her participation in the operation. She was unloaded and her troops and cargo were reloaded into THUBAN during the rehearsal period. Since no other AKA was available, the USS AURIGA, an AK, was substituted for THUBAN, which had not yet been loaded with TWENTY SEVENTH Division materiel.

11. Since the capacity of the shipping allocated to the Marine Divisions was not sufficient to accommodate Corps Artillery, other Corps Troops, and advance Garrison elements which had been designated to move with the Assault Force, the G. F. ELLIOTT, an AP, and JUPITER and HERCULES, AK's, were assigned for this purpose and were

SHIP LOADINGS

loaded at OAHU during the rehearsal period.

12. Two LSD's each were assigned to the SECOND and FOURTH Marine Divisions and each was loaded with one company of medium tanks (18) in LCM's. LCM's loaded some tanks from the beach at KAHULUI and HILO and some at the beach in PEARL HARBOR. A fifth LSD, BELLEGROVE, which was equipped with an upper deck, loaded seventy reserve LVT's for both Divisions off KOKO HEAD, OAHU. Additional medium and light tanks were loaded in APA's and AKA's, each Marine Division having one battalion of tanks.

13. Arrangements were made for debarkation of Marines for exercise ashore during the rehabilitation period after rehearsal when all heavy ships were at OAHU. The TWENTY SEVENTH Infantry Division was debarked to return to its camp for rehabilitation and was reembarked just prior to sailing.

14. The personnel and materiel embarked on the heavy ships is shown on ANNEX 2. Annex 3 is a list of personnel and materiel of the Garrison Force which were embarked with the assault force.

HAWAIIAN Area - LST's

15. On the basis of a total of fifty seven LST's, the number which it was hoped would be available at HAWAII in time to load, an allocation was made, on Corps recommendations, to assault and garrison units as follows:

2d MarDiv LVT's - 18 LST's (306 LVT's)
2d MarDiv Arty. - 4 LST's (Dukws and LVT(4s) with howitzers)
4th MarDiv LVT's - 16 LST's (272 LVT's)
4th MarDiv Arty. - 4 LST's (Dukws and LVT(4s) with howitzers)
27th Div. Arty. - 3 LST's (Dukws with howitzers)
Corps Arty. - 2 LST's (Dukws with howitzers, 155 mm. guns)
SAIPAN AA Defense - 2 LST's (40mm and 90mm)
SAIPAN Construction - 3 LST's
GUAM Construction - 5 LST's

Total - 57 LST's

16. On the twenty-fifth of April most of the fifty seven LST's were enroute from forward areas on the Mainland; most would require docking and repairs; and would have to go into the PEARL HARBOR Navy Yard to be loaded with either an LCT, a side-carry pontoon causeway, or pontoon barges on the upper deck; 26 must be preloaded at the Naval Ammunition Depot with resupply of Destroyer and LCI(G) ammunition. Previous experience had demonstrated the desirability of loading loose emergency supplies for assault troops in LST's to be unloaded by LVT's in case transport boats could not reach the beach. Since the tactical plan contemplated an initial Transport

SHIP LOADINGS

Area about 16,000 yards from the beach in the open sea, it was considered essential that such supplies as might be needed by assault troops prior to consolidation of the beachhead be carried in LST's. Since time was short and no beaching facilities for large numbers of LST's were available at MAUI or HAWAII, it was decided to load each LST carrying assault LVT's with a standard preload of supplies as opportunity allowed during the repair period at PEARL HARBOR. This plan was acceptable to Corps, which after consulting with the Divisions, prepared a manifest for the Standard Load #1, and a standard loading plan was made and distributed. Manifest and Loading Plan are enclosures to Force Speedletter, Serial 0312, copy attached hereto marked Annex 4.

17. To each of the Marine Divisions, three LST's were assigned which carried pontoon causeways side-carried so that weather deck space was available. These were to be loaded by the Divisions with Load #3, a weather deck load of LVT and Dukw maintenance equipment and supplies. The LST's assigned to carry Dukws and artillery of each Division were loaded prior to embarkation of Dukws with Load #2, consisting of supplies and artillery ammunition covering the tank deck to such a height that Dukws could be driven over it and stowed on top of it. This loading provided an average of $4\frac{1}{2}$ units of fire for embarked artillery, which was to be unloaded at the objective by shuttle trips of Dukws.

18. Since it was necessary to issue a loading schedule earlier than the order of availability of LST's could be known, because of the various factors discussed in the preceeding paragraphs, the loading schedule was issued using serial numbers. LST's when ready, were assigned appropriate serial numbers and all concerned were notified by dispatch. A copy of the loading order is attached hereto marked Annex 5.

19. Loadings and embarkation of personnel were completed generally on schedule and the forty two assault LST's participated in rehearsal. During the rehearsal period, seven more LST's were loaded. The remaining eight were partially loaded or about to commence loading at the end of the rehearsal period.

20. Twenty two LST's returned from rehearsal in need of repairs, and many required yard work. Before entering the yard, LVT and Dukw fuel in drums had to be removed and from those ships which were docked, and it was necessary to unload all ammunition.

21. This was the state of affairs on Sunday, May 22, two days before the first LST group was to depart OAHU when six LST's caught fire and sunk in WEST LOCH. Several others were damaged by the smoke and fire, and required yard repairs. To replace this loss, six new loads were assembled and loaded into three ships of the Southern Garrison Force, and three ships which had been in need of repairs and had not been assigned. The three ships of the

SHIP LOADINGS

Southern Garrison Force were later replaced by two other unassigned ships which were repaired in time. Prior to entering the Yard for repairs the ships loaded with artillery ammunition were unloaded into other available ships so that many other changes in assignments by LST numbers were necessary.

22. LVT and Dukw fuel on all ships was replaced prior to departure. LVT and Dukw maintenance loads were replaced. No attempt was made to reconstitute the Load #1 of which the ammunition components were removed from such ships as entered the Yard since docks were not available, and the time remaining was not sufficient. However, troop units were directed by Corps to reembark on LST's with two units of fire.

23. These measures enabled the LST groups to sail in time to arrive at destination in accordance with plan although their departure was delayed one day.

24. The tactical plan of attack contemplated landing of assault troops in LVT's from LST's. The personnel capacity of the heavy ships available was not sufficient to accommodate all the troops of the Divisions and attached units. A study was made as to the number of men who could be accommodated with a reasonable degree of comfort on LST's. The study showed that troops could be accommodated on bunks and cots as follows:

150	in troop compartments
80	on main deck under LCT
70	on LCT deck
30	on main deck aft of LCT
15	on boat deck and fantail
345	

25. Because of the extra hazards involved and the limitations of messing and head facilities, it was decided not to berth any troops in the LVT's on tank decks. Plans were made to embark 300 troops at the embarkation point and 50 additional at the staging point and the embarkation was carried out accordingly.

GARRISON XAPs, XAKs

26. All the ships of the First Section, SAIPAN Garrison Force, except CAPE TRINITY, were loaded at OAHU. The ten heavy ships carried a total of 326 officers, 7,315 enlisted, and 2,760,000 cubic feet of cargo. The CAPE TRINITY was loaded on the West Coast with 250,000 cubic feet of construction materiel.

27. Of the GUAM Garrison Force, the J. H. KINCAID, an XAP; was loaded at OAHU; the ARA, an XAK, was loaded on the West Coast,

SHIP LOADINGS

and the six other heavy ships of the First Echelon were loaded in SOPAC under the supervision of the Commander, Group THREE, FIFTH Amphibious Force.

28. The Commanding General, Expeditionary Troops, had requested that one troop ammunition resupply vessel each should be available in the two objective areas by D plus 5 days and W plus 5 days respectively, and that two troop general resupply vessels should be available in each area by D plus 12 and W plus 12 days respectively. The general resupply vessels were loaded by separate authority on the West Coast under a system of "block loading". Each block was to contain supplies which are common to all troops sufficient for thirty days operations for three thousand men. The blocks were loaded for complete unloading of all the supplies in each block successively. No advantage to this method of resupply was noted. It is believed that more orderly resupply will be effected by loading all supply ships for selective discharge.

29. It was recognized that unloading facilities at the objective would be limited and the number of ships which could be efficiently and with some degree of safety unloaded simultaneously by D plus 5 days was not known. Therefore, all ships were loaded and sailed to anchorages in the MARSHALLS ready to move forward on call.

30. It was provided that each of the eleven garrison ships for SAIPAN and eight garrison ships for GUAM would be loaded with a definite priority of unloading in relation to the other ships of its group so that any number of ships which might be called up, would carry the personnel and materiel most needed at that time.

UNLOADING - SAIPAN

31. June 15, D day, all ships except CAMBRIA retired during the night. On June 16 all ships except CAMBRIA, ALCYONE, ELECTRA, MIDDLETON, BELLATRIX and LA SALLE retired for the night, returning at daylight. By evening of 17 June, approximately 4500 short tons had been unloaded from Transport Group A, and 5500 tons from Transport Group B, the difference being accounted for by more intense enemy interdiction of Group A beaches. LST's of Tractor Groups had unloaded all LVT's, and averaged 70% of supplies, a total of approximately 1700 tons "hot" supplies. Artillery LST's had debarked Dukws and weapons and averaged about 45% of their supplies including the four units first embarked, a total of approximately 1600 tons. To recapitulate, evening of D plus 2, equipment and supplies, exclusive of water borne equipment totaled as follows:

From Transport Group A - 4500 short tons
B - 5500 " "

SHIP LOADINGS

From LST's - 1700 short tons
" Arty. LSTs 1600 " "

Total - 13,300 short tons

All the Transports and LST's, less CAMBRIA, ELLIOTT, HERCULES and JUPITER, retired and did not return at daylight, June 18, owing to prospective attacks by the enemy fleet. At this time, it was estimated that the Marine Divisions ashore had been delivered each about two units of fire and seven days rations, since ammunition and rations for the first two days were carried on the persons of the troops. In view of the time required to unload materiel and make distribution to troops and the not improbable loss of up to 50% of supplies in a landing against a strongly defended beach, the position was not regarded favorably. In the afternoon and evening of 17 June, two RCT's of the TWENTY SEVENTH Division were landed but no considerable amount of supplies were landed from their ships. It was decided to leave the CAMBRIA, JUPITER, HERCULES and ELLIOTT and 17 LST's at SAIPAN to continue to unload. From this time on, such ships as were called for by the troops ashore were sent in to the anchorage in groups to be unloaded, remaining over night, in most cases. By 26 June all ships of the assault force had completed unloading, except for about 1500 tons on ships of TransDiv 34, to which a "stop unloading" order had been issued.

GARRISON UNLOADING

32. On July 26, the First Garrison Echelon of fourteen ships commenced unloading at SAIPAN. Except for resupply ships it was substantially completed by July 2, when control of unloading was passed to the Island Commander. During the period D to D plus 22, night unloading was considerably hampered by frequent RED alerts. From July 20 to July 29, most unloading craft were withdrawn from service at SAIPAN to participate in the attack on TINIAN, and thereafter, until August 10th, about half the craft were required at TINIAN. Consequently, unloading on SAIPAN slumped during this period. Specially trained naval cargo officers were assigned to the ships of the First Echelon and staffs of the Section Commanders. Unloading plans were made with great care, and a considerable increase in unloading efficiency over previous operations was noted. The estimated average unloading rate during the various phases prior to July 20 is shown in the following Table. All Cargo figures are expressed in short tons.

1ST PERIOD -- Beach Assault - D to D plus 3 (incl) 14,000 tons, 3600 tons per day.

2ND PERIOD -- Assault general unloading - D plus 4 to D plus 11 (incl) - 63,000 tons, 7900 tons per day.

ENCLOSURE (N)
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SHIP LOADINGS

3RD PERIOD -- First Echelon Garrison unloading - D plus 12 to D plus 17 (incl) 27,488 tons, 4500 tons per day.

4TH PERIOD -- Resupply Unloading - D plus 18 to D plus 21 (incl) 16,048 tons, 4000 tons per day.

5TH PERIOD -- Resupply and Second Echelon Unloading - D plus 22 to D plus 34 (incl) - 41,428 tons, 3187 tons per day.

TOTAL - D to D plus 34 (incl) - 161,924 tons (4626 tons per day.)

33. Attention is invited to the reports of Commander Group TWO, Amphibious Forces Pacific, and Commander Group THREE Amphibious Forces Pacific; for details of the loading and unloading of the TINIAN and GUAM forces, and to the report of Commanding General, Expeditionary Troops for further detail of embarkation plans.

ANNEXES

1. ComFIFTHPhibFor secret speedletter serial 00470 of 15 April 1944 - Heavy Ship Loading Schedule (5 pages).

2. Personnel and Material embarked on heavy ships. (7 pages

3. Garrison Force Personnel embarked on FORAGER Assault Ships. (2 pages).

4. ComFIFTHPhibFor confidential speedletter serial 0312 of 24 April 1944 - LST Manifest and Loading Plans. (4 pages).

5. ComFIFTHPhibFor secret speedletter serial 00504 of 26 April 1944 - FORAGER LST Loading Schedule. (7 pages).

[redacted]

Joint Expeditionary Force (TF 51)
Office of the Commander, U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ANNEX "1" TO ENCLOSURE (N)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

COMMANDER FIFTH AMPHIBIOUS FORCE SECRET SPEEDLETTER SERIAL 00470 DATED 15 APRIL, 1944

SPEED LETTER SPEED LETTER

C5A/L1
Serial 00470 SECRET 15 APRIL 1944

FROM: COMFIFTHPHIBFORPAC

TO :
CINCPAC, COMCENPAC, COMSERVPAC, COMGENCENPAC, COMAIRPAC, CG FIFTHPHIBCORPS, CG 2ND MARDIV, CG 4TH MARDIV, CG 27TH INFDIV, RCT COMDRS, COM 14, COMDT NYPH, COMHAWSEAFRON, OINC CARGO AND PASSENGER CONTROL HONOLULU, OINC FREIGHT DIV NSD KUAHUA ISLAND, COMGROUPS 1,2,3, FIFTHPHIB, CTDS 7,10,18,20,28,30,32,34,26 TD'S 7,10,18,20,26,28,30,32,34; OAK HILL, LINDENWALD, WHITE MARSH, ASHLAND, ADMINCOM FIFTHPHIB, COMTHIRDPHIB, COMPHIBTRAPAC

1. REFER TO SPEED LETTER SERIAL 00412 OF 2 APRIL 1944 AND SPEED LETTER SERIAL 00414 OF 3 APRIL 1944, WHICH LETTERS ARE MODIFIED TO EXTENT REQUIRED BY THIS ORDER.

2. TRANSDIVS 10, 28, AND 18 EMBARK PERSONNEL AND MATERIAL OF SECOND MARINE DIVISION REENFORCED AT HILO AS FOLLOWS:

TRANSDIV TEN (SECOND MARINES)

CLAY (F)	STBD SIDE TO PIER ONE (SEAWARD)	MAY 5-6-7
NEVILLE	PORT SIDE TO PIER ONE (SHOREWARD)	MAY 5-6-7
MIDDLETON	STBD SIDE TO PIER TWO	MAY 5-6-7
FELAND	IN STREAM (BY SHIPS BOATS)	MAY 11-12-13
ALHENA	STBD SIDE TO PIER ONE (SEAWARD OR PORT SIDE TO PIER THREE	MAY 1-2-3-4

TRANSDIV TWENTY-EIGHT (SIXTH MARINES)

BOLIVAR (F)	STBD SIDE TO PIER ONE (SEAWARD)	MAY 8-9-10
DOYEN	PORT SIDE TO PIER THREE	MAY 8-9-10
SHERIDAN	PORT SIDE TO PIER ONE (SHOREWARD)	MAY 8-9-10
COMET (AP)	STBD SIDE TO PIER TWO	MAY 8-9-10
ELECTRA	PORT SIDE TO PIER ONE (SHOREWARD	MAY 1-2-3-4
OAK HILL (ISD)	IN STREAM (BY SHIPS BOATS)	MAY 8-9-10

C5A/L1
Serial 00470

SECRET

APRIL 15, 1944

TRANSDIV EIGHTEEN (EIGHTH MARINES)

MONROVIA (F)	PORT SIDE TO PIER ONE (SHORE'D)	MAY 11-12-13
FUNSTON	PORT SIDE TO PIER THREE	MAY 11-12-13
CAMBRIA (GF)	STBD SIDE TO PIER TWO	MAY 11-12-13
WARHAWK (AP)	STBD SIDE TO PIER ONE (SEAWARD)	MAY 11-12-13
ALCYONE	STBD SIDE TO PIER TWO	MAY 1-2-3-4
LINDENWALD (LSD)	IN STREAM (BY SHIPS BOATS)	MAY 11-12-13

3. TRANSDIVS 26, 30, AND 20 EMBARK PERSONNEL AND MATERIAL OF FOURTH MARINE DIVISION REENFORCED AT KAHULUI AS FOLLOWS:

TRANSDIV TWENTY-SIX (23RD MARINES)

CALLAWAY (F)	STBD SIDE TO PIER ONE (SEAWARD)	MAY 6-7
SUMTER	STBD SIDE TO PIER TWO (SHORE'D)	MAY 6-7
LEON	STBD SIDE TO PIER TWO (SEAWARD)	MAY 6-7
STORM KING (AP)	PORT SIDE TO PIER ONE (SHORE'D)	MAY 6-7
AIMACK	STBD SIDE TO PIER ONE (SEAWARD)	MAY 2-3-4

TRANSDIV THIRTY (24TH MARINES)

KNOX (F)	STBD SIDE TO PIER ONE (SEAWARD)	MAY 9-10
CALVERT	PORT SIDE TO PIER ONE (SHORE'D)	MAY 9-10
FULLER	STBD SIDE TO PIER TWO (SEAWARD)	MAY 9-10
JOHN LAND (AP)	STBD SIDE TO PIER TWO (SHORE'D)	MAY 9-10
BELLATRIX	PORT SIDE TO PIER ONE (SHORE'D)	MAY 2-3-4
WHITE MARSH (LSD)	IN STREAM (BY SHIPS BOATS)	MAY 9-10

TRANSDIV TWENTY (25TH MARINES)

LEONARD WOOD (F)	STBD SIDE TO PIER ONE (SEAWARD)	MAY 12-13
PIERCE	STBD SIDE TO PIER TWO (SHORE'D)	MAY 12-13
JAMES O'HARA	PORT SIDE TO PIER ONE (SHORE'D)	MAY 12-13
LA SALLE (AP)	STBD SIDE TO PIER TWO (SEAWARD)	MAY 12-13
ALCHIBA	STBD SIDE TO PIER TWO (SEAWARD)	MAY 2-3-4
ASHLAND (LSD)	IN STREAM (BY SHIPS BOATS)	MAY 12-13

4. TRANSDIVS 7 AND 32 EMBARK MATERIAL OF 27TH INFANTRY DIVISION REENFORCED AT HONOLULU AS FOLLOWS:

TRANSDIV SEVEN (105TH RCT)

CAVALIER (F)	STBD SIDE TO PIER TWENTY-SIX	MAY 14-15
J.F. BELL	PORT SIDE TO PIER TWENTY-SEVEN	MAY 14-15
HEYWOOD	STBD SIDE TO PIER TWENTY-EIGHT	MAY 14-15
WINGED ARROW (AP)	STBD SIDE TO PIER TWENTY-NINE	MAY 14-15
FOMALHAUT	PORT SIDE TO PIER FORTY	MAY 14-15-16

TRANSDIV THIRTY-TWO (165TH RCT)

HARRIS (F)	STBD SIDE TO PIER TWENTY-SIX	MAY 17-18
CUSTER	STBD SIDE TO PIER TWENTY-EIGHT	MAY 17-18
FREMONT (GF)	PORT SIDE TO PIER TWENTY-SEVEN	MAY 17-18
HERALD OF THE MORNING (AP)	STBD SIDE TO PIER TWENTY-NINE	MAY 17-18
THUBAN	PORT SIDE TO PIER FORTY	MAY 14-15-16

5. TRANSDIV THIRTY-FOUR EMBARK MATERIAL OF 27TH INFANTRY DIVISION REENFORCED AT PEARL HARBOR AS FOLLOWS:

TRANSDIV THIRTY-FOUR (106TH RCT)

PRINCE GEORGE (AP)	STBD SIDE TO BERTH M-4	MAY 17-18-19
KENMORE (AP)	STBD SIDE TO BERTH K-5	MAY 17-18-19
DE GRASSE (AP)	PORT SIDE TO BERTH K-7	MAY 17-18-19
LIVINGSTON (AP)	STBD SIDE TO BERTH K-8	MAY 17-18-19
LEONIS (AK)	STBD SIDE TO BERTH K-11	MAY 16-17-18-19

6. ALL DOCK SPACES HAVE BEEN RESERVEDDFOR ONE DAY PRIOR TO LOADING EACH SHIP SO THAT CARGO MAY BE ASSEMBLED AND SPOTTED ON THE DOCK. THE PORTS OF KAHULUI AND HILO WILL BE CLOSED TO SHIPPING NOT CONNECTED WITH THESE OPERATIONS DURING THE PERIOD MAY FIRST TO FOURTEENTH.

7. IT IS PLANNED THAT SHIPS WILL ARRIVE AT HILO DURING THE FORENOON OF THE FIRST OF THE DAYS ASSIGNED FOR LOADING AND WILL COMMENCE LOADING AS SOON AS THEY ARE ALONG SIDE THE DOCK. IT IS PLANNED THAT SHIPS WILL DEPART HILO DURING THE LATE AFTERNOON OF THE LAST DAY ASSIGNED FOR LOADING.

8. IT IS PLANNED THAT SHIPS WILL ARRIVE AT KAHULUI DURING THE LATE AFTERNOON OF THE DAY PRIOR TO THE ASSIGNED LOADING DATE, AND WILL COMMENCE LOADING AS SOON AS THEY ARE ALONGSIDE THE DOCK. IT IS PLANNED THAT SHIPS WILL DEPART KAHULUI DURING THE FORENOON OF THE DAY FOLLOWING THE LAST DAY ASSIGNED FOR LOADING.

9. TROOPS OF THE SECOND AND FOURTH MARINE DIVISIONS EMBARK AT THE LOADING BERTHS IMMEDIATELY UPON COMPLETION OF LOADING EACH SHIP. AFTER EMBARKING TROOPS, TRANSDIVS 10, 28, 26, AND 30 WILL BE

C5A/L1
Serial 00470 SECRET APRIL 15, 1944

MOVED TO PORTS ON OAHU IN ORDER TO CLEAR KAHULUI AND HILO FOR OTHER TRANSDIVS TO LOAD. TROOPS OF THE 27TH INFANTRY DIVISION EMBARK AS FOLLOWS:

(A) TRANSPORTS OF TRANSDIV THIRTY-TWO WILL EMBARK TROOPS OF THE 165TH RCT IN THE FORENOON OF MAY 19TH AND TRANSPORTS OF THIS DIVISION WILL BE MOVED FROM THEIR LOADING BERTHS TO MOORINGS BY

NOON. THUBAN EMBARK TROOPS OF THE 165TH RCT AT THE SAME TIME BY SHIPS BOATS FROM THE SMALL BOAT LANDING AT THE HEAD OF PIER ELEVEN.

(B) TRANSPORTS OF TRANSDIV SEVEN WILL BE MOVED FROM MOORINGS TO LOADING BERTHS AT NOON MAY 19TH AND EMBARK TROOPS OF THE 105TH RCT DURING THE AFTERNOON.

(C) FOMALHAUT EMBARK TROOPS OF THE 105TH RCT AT THE SAME TIME BY SHIPS BOATS FROM THE SMALL BOAT LANDING AT THE HEAD OF PIER ELEVEN.

(D) TRANSDIV THIRTY-FOUR EMBARK TROOPS OF THE 106TH RCT AT THE LOADING DOCKS DURING THE AFTERNOON OF MAY 19TH.

10. INFORMATION IS NOT NOW AVAILABLE ON WHICH TO BASE A LOADING SCHEDULE FOR APD'S, LST'S, XAP'S, AND XAK'S. SEPARATE SPEED LETTERS WILL BE ISSUED LATER ON THESE LOADINGS. IT IS PROBABLE THAT THEY WILL BE LOADED DURING THE SAME PERIOD AS THE TRANSDIVS.

11. ATTENTION IS DIRECTED TO AMPHIBIOUS FORCE CIRCULAR LETTER AL16-44 DATED MARCH 30, 1944, WHICH WILL GOVERN IN ALL MATTERS PERTAINING TO LOADING.

12. MOVEMENT OF SHIPS TO CONFORM TO THIS LOADING SCHEDULE WILL BE AS DIRECTED BY THE ADMINISTRATIVE COMMANDER, FIFTH AMPHIBIOUS FORCE.

/s/ H. B. STARK,
Lieutenant Commander, USN.,
FLAG SECRETARY.

DECLASSIFIED

BREAKDOWN OF EQUIPMENT & SUPPLIES --- 4th MARINE DIV.

	TRANS. DIV. 20 RCT 25						TRANS. DIV. 26 RCT 23						TRANS. DIV. 30 RCT 24							
	L. WOOD	PIERCE	O'HARA	LA SALLE	THUBAN	ASHLAND	CALLAWAY	SUMTER	LEON	S. KING	ALMACK	BELLGROVE	KNOX	CALVERT	FULLER	J. LAND	BELLATRIX	WHITEMARSH	20 LSTs	TOTALS
OFFICERS	155	97	123	60	8	10	91	83	88	69	10	19	94	88	53	109	8	6	216	1387
ENLISTED	1733	1306	1420	1250	182	180	1560	1402	1475	990	272	326	1417	1268	1040	1343	161	142	6012	23,479
SEA BAGS (SHORT TONS)	69.9	57.0	94.0	44.6	9.0		65.4	59.1	86.0	41.5	1.2		59.2	36.3	45.8	55.6	6.6		240.0	991.2
OFFICE EQUIP	6.5	1.1	1.3	.5	2.0		2.1	.5	.2	1.4			.9	2.6	.4	1.5				21.0
COMBAT EQUIP	48.5	14.1	52.0	27.5	13.7		26.4	18.5	24.4	21.0	22.0		78.8	41.8	11.6	43.0	104.4		4.0	351.7
SUPPLEMENTARY EQUIP	43.6	44.6	63.2	44.5	101.5		14.3	45.6	48.1	68.8	154.3		55.1	41.5	33.7	89.5	180.3			1028.6
MESS EQUIP	4.9	3.2	7.0	4.0	4.2		4.6	3.0	3.4	4.2	13.8		6.1	8.2	4.3	10.2	1.8			82.9
CAMP EQUIP	8.9	4.2	5.4	11.0	4.1		5.1	3.7	4.6	11.8	9.1		13.8	14.1	6.7	39.8	9.3			151.6
SPECIAL EQUIP	11.0	11.3	.5	1.0	154.0		23.8	1.9	1.2	48.5	113.3		.1	15.8	1.5	2.1	4.0			390.0
AMMO SMALL ARMS	38.3	37.3	48.6	48.6	38.2		38.2	38.2	38.2	38.2	38.2		38.2	38.2	38.2	38.2	38.3		940.0	1533.1
AUTOMATIC SUP (LESS RATIONS, GAS & OIL)	47.0	29.8	30.1	47.7	90.2		48.4	48.4	48.4	48.5			32.0	33.5	29.8	32.3	86.7			652.8
REPLENISHMENTS	14.0			.6	125.3		28.0				133.4		1.8				120.0			423.1
PX SUPPLIES	23.0	7.5			8.0		6.8	6.8	6.8	8.5	19.0		6.8	7.5	6.8	7.0	13.6			128.1
HIGH EXPLOSIVES	150.8	138.0	148.2	155.6	151.3		144.1	144.1	144.1	144.1	144.1		151.5	151.5	151.5	151.5	151.5		460.0	2702.1
PETROLEUM PRODUCTS	67.2	67.2	67.2	72.3	822.6		108.3	98.2	98.2	102.2	534.4		67.2	67.2	73.7	67.2	679.1		500.0	3512.0
PYROTECHNICS	1.4	1.0	.8	.8	.3		.3	.3	.3	.3	.3		.3	.3	.3	.3	.3			7.3
RATIONS	111.6	114.9	122.4	129.3	67.4		86.6	86.6	86.6	86.6	40.4		115.8	122.4	123.3	122.4	74.9		160.0	1651.4
TOTAL CARGO	646.6	551.2	640.7	588.0	1592.0		602.4	534.9	590.0	625.6	1243.5		627.6	600.9	527.8	660.6	1470.8		2304.0	13826.9
GRAND TOTAL (TONS)	825.0	720.0	837.8	847.0	2091.5		903.0	774.0	855.0	766.0	1829.0		806.0	690.0	589.8	756.7	1910.5		7060.0	22171.3
VEHICLES (NUMBER)																				
AMBULANCES, 1/4 TON	2	2	1	4	1		6	1	1		1		8	2	2	2				33
AIR COMPRESSOR, 105											2						1			3
BOOM ASSEMBLY (SHOVEL)																				
CARTS				8			38		22	2			45	36	36	2			6	195
DISTILLATION UNIT			3	3					2				3			3	6			20
DISTILLATION UNIT, 1500 GAL.																				
DIST. UNIT, PORT. 1800-2500 GAL.																				
GENERATOR, 10KVA				1					1							1	3			6
DRAGLINE																				
DUKW																			66	66
GUN, 37 MM	4	4	4		1		4						4	4	4				4	33
HOWITZER, 75 MM			12						12											24
HOWITZER, 105 MM																			36	36
HOWITZER, 155 MM																				
LVT (A1)																			53	53
LVT (A4)												35							16	51
LVT (2) OR (A2)												35							199	234
LVT (4)																			20	20
TANK, MEDIUM						17(2)					8							16		41
TANK, LIGHT					5		5		5				3							18
TRACTOR, D-14	2	2	2	1																7
TRACTOR, D-9 W/O BLADE																				
TRACTOR, D-9 W/CRANE																				
TRACTOR, D-9	3	1	2	3	2		4	5	5	1	1					1	2			30
TRACTOR, TD-18	1			1			2	5	1											10
TRACTOR, D-6 W/BLADE		1											1				1			3
TRAILER, 1 TON (SCR-299)	1										1					1				3
TRAILER, ARC WELDER					1				1		2						1			5
TRAILER, 1 TON, 2 WH, CARGO		1	1	4	7		3	1	3		9		1	2	6		5			43
TRAILER, 1 TON, LUBRICATION		1		3	3			1		1							1			10
TRAILER, ANT., (SCR-270)																				
TRAILER, WATER PURIFICATION																				
TRAILER, 3 TON, WATER PURIF.															1	1				2
TRAILER, 1 TON, WATER PURIF.																				
TRAILER, 2 TON, 4 WH. STOCKROOM																	1			1
TRAILER, 1 TON, 2 WH. STOCKROOM			1	1	3				1	1							2			9
TRAILER, 1/4 TON CARGO	7	7	5				5	11	8		1		6	6	2	2	3			63
TRAILER, WATER, 300 GAL.	4	4	6	5	4		4	1	4	2	3		1	2		3	10			53
TRAILER, 1/4 TON, W/RADIO																				
TRAILER, 1 TON, AIR COMP.																				
TRAILER, 4 WH. AIR COMP.																				
TRAILER, WAREHOUSE					16															16
TRAILER, 1/4 TON, 2 WH, STOCKROOM																				
TRAILER, 1 TON, LIGHTING																				
TRAILER, 2 TON, 4 WH.															1					1
TRAILER, 3 TON, DARKROOM																				
TRAILER, 15 TON, MACH. SHOP																	1			1
TRAILER, 5 TON, 4 WH., MACH. SHOP																	2			2
TRAILER, STEAM																				
TRAILER, 1/2 TON, RADIO			1								1		1				2			5
TRAILER, 1 TON, W/RADIO POWER U.											1		1							2
TRUCK, 1 TON, 4X4 W/RADIO																	2			2
TRUCK, 1/4 TON	14	12	12	11	12		12	9	11	8	13		12	21	9	5	12		3	176
TRUCK, 1/4 TON W/RADIO	15	5	11	9	13		10	6	8		6		12	9	5	4	6			119
TRUCK, 1/2 TON																				
TRUCK, 1 TON, RECON	5	7	27	13	17		10	11	7	15	18		7	11	6	5	4			163
TRUCK, 1 1/2 TON, SCR	1													1						2
TRUCK, 2 1/2 TON, CARGO	6	4	3	11	8		5	5	7		5		1	2	1		25			86
TRUCK, 2 1/2 TON, DUMP	1	2	2	1	7		6		4		12		3				6			44
TRUCK, 2 1/2 TON, WRECKER																	2			2
TRUCK, 4X4, FWD																				
TRUCK, 1 TON, 4X4, REPAIR					1												1			2
TRUCK, WATER, 750 GAL.																	1			1
TANK, LIGHT, W/FLAME THROWER					4		4		4											12
TANK, MEDIUM, W/DOZER						1												2		3
TRUCK, 3/4 TON, W/RADIO													1			2				3
TRUCK, PERSONNEL CARRIER																				
TRUCK, HIGH LIFT					6					5										11
SLEDS, LARGE																				
SHOVEL, GAS																	1			1
WATER PURIFICATION UNIT																				
SCRAPER				2													1			3
ROLLER, TANDEM											2						1			3
ROLLER, SHEEPSFOOT																	2			2
CRANES, CRAWLER					3						3									6
TRACTOR, DEEP TOW					4															4
TRAILER, LOW BED					2															2
EARTH AUGER																	1			1
HALF TRACK	2	3	2		1					5	2					4				19
TOTAL NO OF VEHICLES	68	56	95	81	121	18	118	56	107	40	91	70	110	96	73	36	106	18	406	1766

PREPARED BY: TRANSPORT QUARTERMASTER, V AMPHIBIOUS CORPS

NOTE (1), TOTAL NO. OF VEHICLES NOT INCLUDING CARTS - 1571. NOTE (2), 15 ARTY. OBS. PLANES LOADED TOP DECK.

ANNEX 2
TO ENCLOSURE N
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BREAKDOWN OF EQUIPMENT & SUPPLIES --- 27th ARMY DIVISION

	TRANS. DIV. 7 RCT 105						TRANS. DIV. 32 RCT 165						TRANS. DIV. 34 RCT 106							
	CAVALIER	BELL	HEYWOOD	W. ARROW	FOMALHAUT		CUSTER	FREMONT	HARRIS	HERALD OF THE MORN.	AURIGA		P. GEORGE	KENMORE	DEGRASSE	LIVINGSTONE	LEONIS		JLSTs	TOTAL
OFFICERS	84	105	83	84	14		84	94	112	73	19		88	54	55	53	5		63	1070
ENLISTED	740	1766	1260	1408	241		1362	748	1588	1312	317		1031	1099	1099	1198	100		944	16213
BARRACKS BAGS (SHORT TONS)	42.9	70.4	56.9	59.8	10.4		54.6	24.7	51.9	40.0	8.6		43.8	45.2	41.3	52.1	8.4		40.5	651.5
OFFICE EQUIPMENT	1.5	.6	.4	.4	.4		1.1	2.0	.4	.4			.4	.3	.1	.1	.1		.3	8.5
ORGAN. INITIAL COMBAT EQUIP.	3.5	6.9	6.3	7.6	.2		6.1		9.0	5.2	.1		1.4	5.9	4.3	5.7	.1		1.2	63.5
ORGANIZATIONAL EQUIP.	34.6	17.6	7.2	17.8	3.0		4.6	18.9	32.4	11.1	1.0		25.0	5.9	8.6	8.5	5.8		2.2	204.8
MESS EQUIPMENT	10.7	9.4	5.2	6.0	5.8			8.1	12.4	7.4	1.7		7.8	6.1	7.1	8.2	.6		1.3	97.8
SPECIAL EQUIPMENT	9.9	47.8	3.2	44.5	2.5			9.0	2.1	2.7	2.7		15.6	61.5	55.2	62.7	.2		8.1	327.7
COTTONS, WOOLENS & TRUNK LOCKERS	4.6	4.1	4.1	3.6	5.0		5.0	5.0	5.6	3.3	.9		4.1	2.9	3.0	2.8	.5		2.3	54.8
TOWED GUNS	1.3	3.5	3.1	3.8	28.1		14.0	1.8	3.6	4.0	32.4		4.9	2.0	1.8	4.6	26.0			134.9
HAND CARTS		2.9	1.7	3.0	1.4		.3		1.0	1.0				2.0	2.2	2.0				17.5
VEHICLES & TRAILERS	265.8	314.4	360.0	331.4	260.9		259.5	221.6	394.3	337.4	447.9		267.0	383.5	400.3	418.9	368.2		836.7	5867.8
AMMO SMALL ARMS	90.7	94.0	47.7	100.0	13.2		18.0	26.1	112.4	87.3	15.3		30.3	85.5	42.3	61.7	34.1		21.0	899.6
CHEMICAL			24.3		30.4			13.5	.6	.6	2.4		.7	.7	.7	.7	1.3			75.9
ENGINEER								13.5	57.7	47.7	22.6			10.0	10.0	5.0	20.8		37.5	224.8
MEDICAL	2.0	4.5	3.0	7.5	6.0			2.5	3.0	3.0	4.1		2.0	3.0	1.0	6.0	11.0			58.6
MOTOR PARTS	1.8										2.0						8.0		25.2	37.0
ORDNANCE					55.6						32.3						33.7			121.6
QUARTERMASTER GEN. SUPPLIES				16.9	32.9		15.0									16.5	32.9		69.0	183.2
RATIONS	36.2	36.7	27.1	200.0	269.4		16.9	95.5	33.1	33.1	247.0		16.1	23.4	23.4	169.7	286.7		20.7	1536.0
SIGNAL	9.0	3.0	1.5		79.6			17.3	3.4	4.5	46.8		19.9	8.5	8.6	8.7			13.5	224.3
HIGH EXPLOSIVES	80.7	198.5	132.5	165.0	401.5		5.6	175.6	99.5	137.9	476.9		82.8	113.3	218.4	150.8	670.5		957.0	4066.5
PYROTECHNICS		.07		5.2				.2	1.1	.9				.3	.1					7.8
GAS, OIL & GREASE	249.3	61.1	52.6	136.3	331.6		7.5	28.0	33.3	49.2	293.3		231.4	37.4	37.4	110.1	379.1		123.0	2160.6
WATER	63.1	42.0	24.5	75.6	107.6		15.1	23.2	44.4	34.8	125.6		84.8	46.4	44.7	70.7	7.1		69.0	878.6
TOTAL WEIGHT OF VEHICLES	267.1	320.8	364.8	338.2	290.4		273.8	223.4	398.9	342.4	447.9		271.9	387.5	404.3	425.5	394.2		836.7	5987.8
TOTAL WEIGHT OF CARGO	640.5	596.6	396.5	846.2	1355.1		149.5	462.1	502.4	469.1	1283.3		586.1	455.9	506.2	740.0	1500.9		1391.8	11882.2
GRAND TOTAL, CARGO & VEHICLES	907.6	917.4	761.3	1184.4	1645.5		423.3	685.5	901.3	811.5	1731.2		858.0	843.4	910.5	1165.5	1895.1		2228.5	17870.0
VEHICLES (Number)																				
AIRPLANE					1						1						2			4
DISTILLATION UNIT		1	1	1						2				1	1	1				8
CRANE, T-9		1															3			4
CRANE, T-20																	1			1
COMPRESSOR, 2½ TON	1		1						1	1				1	1	1	1			8
COMPRESSOR, MTR		1																		1
HAND CARTS		14	10	14			10							10	10	10				78
MORTAR & AMMO CARTS				3					4	14										21
GUN, 37 MM	2	7	7	7			4	4	8	8			8	4	4	8	2			73
HOWITZER, 105 MM					1		4				1					2	1		36	45
HOWITZER, 155 MM					4						5						4			13
MOTORCYCLE	1	1		1						1										4
TRACTOR, M-5					10						10						10			30
TRACTOR, R-4					3					5	2						5			15
TRACTOR, D-7							2			4	2									8
TRACTOR, D-7 W/DOZER		4	4	8			5		2					5	5	5				38
TRACTOR, R-4 W/DOZER	2	2	2	2					4					3	3	2				20
TRACTOR, D-6 W/DOZER									2							1				3
TRACTOR, D-4 W/DOZER					2															2
ROUSTABOUT, D-7			1						1											2
TANK, LIGHT			5	5					5	5										20
TANK, MEDIUM		5					5				1		1	5	5	5				27
HALFTRACK, M3A1	1	4									1									6
HALFTRACK, M3								1												1
TRUCK, ¼ TON, AMPHIBIOUS	2																			2
TRUCK, ¼ TON	49	42	32	37	10		33	35	56	35	12		44	30	30	30	14			489
TRUCK, ¾ TON		4	3					14		3	13				1					38
TRUCK, ¾ TON, C&R	1								1				2							4
TRUCK, ¾ TON, WC	11				10				4					7	1	1	6			39
TRUCK, ¾ TON, WCWW				3																3
TRUCK, 1½ TON			1					3			3						1			9
TRUCK, 1½ TON, WC	1																			1
TRUCK, 2½ TON	6	3	5												7					21
TRUCK, 2½ TON, DUMP	2	6		4	1			1	7	7				7		5	4			44
TRUCK, 2½ TON, LWB, W/W				2			2													4
TRUCK, 2½ TON, LWB					2		4	8	2		3		2				6			27
TRAILER, ¼ TON	1	10	8	13	6		18	4	21	19	8		5	7	7	8	7		27	169
TRAILER, 1 TON	5			3	1			6	1	1	1		1				4			23
TRAILER, WATER	1	2		2				1	2				3							11
TRAILER, ATHEY	2																2			4
TRAILER, K-52	1																			1
TRAILER, 1TON, WELDER								1			1									2
TRAILER, WATER PURIFICATION								2												2
TRAILER, M-10											6						6			12
WINCH, SINGLE DRUM				1					1								3			5
WRECKER, 4TON											1									1
WRECKER, 10TON					1						1						1			3
M-7 SPM				2							2									4
M-8			3										6							9
M-8 SPM		3						3			3									9
DUKW				2															48	50
TRUCK, ½ TON							1													1
LVT (4)																			12	12
TOTAL NUMBER OF VEHICLES	89	110	83	110	52		88	83	122	105	77		72	80	75	79	83		123	1431

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NOTE (1) TOTAL NO. OF VEHICLES NOT INCL. CARTS - 1332 NOTE (2) MAJORITY OF GEN. CARGO, GAS, OIL & AMMO. PALLETIZED.

BREAKDOWN OF EQUIPMENT & SUPPLIES --- CORPS TROOPS & ATTACHED UNITS

	ELLIOTT-AP-105						HERCULES-AK-41						JUPITER- AK-43						2 S T's	TOTAL
OFFICERS	155						6						16						32	209
ENLISTED	1765						173						130						616	2706
SEA BAGS	76.8						56.6						7.0						21.8	162.2
OFFICE EQUIP	4.4						.2						1.6						.2	6.4
COMBAT EQUIP	98.8						46.6						37.5						.06	182.9
SUPPLEMENTARY EQUIP	67.6						96.8													164.3
MESS EQUIP	1.3						11.7						8.0							21.0
CAMP EQUIP	19.6						17.4						1.3							38.3
SPECIAL EQUIP	10.0						43.3						65.0							118.3
AMMO SMALL ARMS	17.9						31.5						56.0						6.4	111.8
AUTOMATIC SUP (LAST RATIONS, GAS & OIL)	2.1						3.7													5.8
REPLENISHMENTS	4.3						165.9						41.0						12.4	223.6
PX SUPPLIES																				
HIGH EXPLOSIVES	142.0						1791.9						1394.8						166.6	3495.3
PETROLEUM PRODUCTS	112.2						358.9						423.6						50.4	945.1
PYROTECHNICS							7.2												.07	7.2
RATIONS	82.4						433.9						129.0							645.3
TOTAL CARGO	639.2						3065.6						2164.8						257.8	6127.4
GRAND TOTAL (TONS) INCL VEHICLES	830.4						4062.6						2957.3						960.0	8810.3
VEHICLES (NUMBER)																				
AMBULANCES,							21						5							26
AIR COMPRESSOR, 105							2						1							3
BOOM ASSEMBLY (SHOVEL)																				
CARTS	5																			5
DISTILLATION UNIT	2																			2
DISTILLATION UNIT, 1500 GAL.																				
DIST UNIT, PORT. 1800-2500 GAL.																				
GENERATOR, 10KVA																				
DRAGLINE																				
DUKW													12						28	40
GUN, 37 MM																				
HOWITZER, 75 MM																				
HOWITZER, 105 MM																				
HOWITZER, 155 MM							24													24
LVT (A1)																				
LVT (A4)																				
LVT (2)																			2	2
LVT (4)																				
TANK, MEDIUM																				
TANK, LIGHT																				
TRACTOR, M-5							12													12
TRACTOR, HD-14																			2	2
TRACTOR, W/CRANE							5						5							10
TRACTOR, TD-14 W/BLADE													1							1
TRACTOR, D-8	2						7						2						2	13
TRACTOR, M-4													6						4	10
TRAILER, 1 TON (SCR-299)																				
TRAILER, ARC WELDER																				
TRAILER, 1 TON, 2 WH, CARGO	11						13						19						6	51
TRAILER, 1 TON, LUBRICATION							6						1							7
TRAILER, ANT., (SCR-270)																				
TRAILER, WATER PURIFICATION							3													3
TRAILER, 3 TON, WATER PURIF.																				
TRAILER, 1 TON, WATER PURIF.																				
TRAILER, 2 TON, 4WH. STOCKROOM							1													1
TRAILER, 1 TON, 2 WH. STOCKROOM													3							3
TRAILER, 1/4 TON CARGO							6													6
TRAILER, WATER, 300 GAL.	5						6						15							26
TRAILER, 1/4 TON, W/RADIO							1													1
TRAILER, 1 TON, AIR COMP.																				
TRAILER, 4WH. AIR COMP.																				
TRAILER, 1/4 TON, MACH.																				
TRAILER, 1/4 TON, 2WH, STOCKROOM																				
TRAILER, 1 TON, LIGHTING																				
TRAILER, 2 TON, 4WH. WELDING																				
TRAILER, PHOTOGRAPHIC							4													4
TRAILER, FUEL													10							10
TRAILER, 5 TON, 4 WH, MACH. SHOP																				
TRAILER, BOMB													1							1
TRAILER, 1/2 TON, ATHEY							15						25							40
TRAILER, 1 TON, W/RADIO POWER U.																				
TRUCK, 1 TON, 4X4							3													3
TRUCK, 1/4 TON	22						86						58						24	190
TRUCK, 1/4 TON W/RADIO	21						4													25
TRUCK, 1/2 TON																				
TRUCK, 1 TON, RECON																				
TRUCK, 1 1/2 TON, SCR	1						1													2
TRUCK, 2 1/2 TON, CARGO	4						18						37						8	67
TRUCK, 2 1/2 TON, DUMP													2							2
TRUCK, 2 1/2 TON, SCR							6													6
TRUCK, 4X4, FWD																				
TRUCK, 1 TON, 4X4, REPAIR																				
TRUCK, WATER, 750 GAL.																				
TRUCK, OIL													1							1
TRUCK, 1/4 TON AMPHIBIOUS																			4	4
TRUCK, 3/4 TON,	5						15						15						8	43
TRUCK, PERSONNEL CARRIER													1							1
CLEANING UNIT													1							1
SLEDS, LARGE	20																			20
VAN, BOAT REPAIR							2						2							4
WATER PURIFICATION UNIT																				
GUN, 155 MM													12						12	24
ROLLER, TANDEM																				
ROLLER, SHEEPSFOOT																				
CRANES, CRAWLER																				
TRACTOR, DEEP TOW																				
TRAILER, LOW BED																				
EARTH AUGER																				
HALF TRACK																				
TOTAL NO OF VEHICLES	98						263						235						100	696

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ANNEX 2
TO ENCLOSURE N
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SOUTHERN LANDING FORCE (FORAGER)

SHIP	NO.	UNIT	TROOP CAPACITY			TROOPS EMBARKED			CARGO CAP.	CARGO LOADED		SHIP's CAPT.
			OFF.	ENL.	TOTAL	OFF.	ENL.	TOTAL	CU. FT.	CU. FT.	S/TONs	
(ASSAULT) 3RD MARINE DIVISION — TRANS. GRP. COMDR.-CAPT. P. BUCHANAN												
TRANS. DIV.-2 — TRANS. DIV. COMMANDER-CAPT. H.D BAKER												
PRES. JACKSON (F)	APA-18	BLT 2/9	90	1409	1499	70	1433	1503	194,386	97,900	979.0	CAPT. A.F. JUNKER
PRES. ADAMS	APA-19	BLT 3/9	91	1395	1486	91	1395	1486	179,698	97,600	976.0	COMDR. M.C. ERWIN
PRES. HAYES	APA-20	BLT 1/9	91	1395	1486	78	1341	1419	179,698	96,200	962.0	COMDR. R.C. WELLES
PRES. MONROE	AP-104	14TH DEF. BN.	147	1862	1973	119	2000	2119	123,320	49,400	494.0	CAPT. H.D. BAKER
TITANIA	AKA-13	14TH DEF. BN.	12	162	174	8	251	259	407,333	180,800	1808.0	COMDR. H.E. BERGER
TRANS. DIV.-8 — TRANS. DIV. COMMANDER-CAPT. F.R. TALBOT												
CRESCENT CITY (F)	APA-21	1/12 H&S 3RCT	84	1151	1235	66	1054	1120	132,195	86,400	864.0	COMDR. L.L. ROWE
WARREN	APA-53	BLT 3/3	75	1054	1129	72	1458	1530	131,761	76,500	765.0	COMDR. W.A. McHALE
WINDSOR	APA-55	BLT 2/3	88	1222	1310	55	1274	1329	144,813	79,600	796.0	COMDR. D.C. WOODWARD
WHARTON	AP-7	BLT 1/3	207	1417	1624	90	1398	1488	52,667	33,300	333.6	COMDR. J.J. FALLON
LIBRA	AKA-12	19TH MARINES	5	200	205	6	155	161	300,000	179,600	1976.0	CAPT. F.F. FERRIS
TRANS. DIV.-24 — TRANS. DIV. COMMANDER-CAPT. P. BUCHANAN												
DUPAGE (GF)	APA-41	DIV. HQS.	87	1249	1336	87	1249	1336	191,005	76,100	761.0	CAPT. G.M. WAUCHOPE
ELMORE	APA-42	BLT 2/21	78	1305	1383	68	1472	1540	156,285	69,700	697.0	COMDR. D. HARRISON
WAYNE	APA-54	BLT 1/21	88	1222	1310	86	1365	1451	146,477	71,400	714.0	COMDR. T.K. COOPER
RIXEY	APH-3	BLT 3/21	55	1184	1239	66	1306	1372	40,000	32,000	320.0	COMDR. P.H. JENKINS
AQUARIUS	AKA-16	H&S 12TH MARINES	5	200	205	12	301	313	383,404	162,000	1620.0	CAPT. R.B. MARBON
(ASSAULT) 1ST MARINE PROVISIONAL BRIGADE — TRANS. GRP. COMDR.-CAPT. McGOVERN												
TRANS. DIV.-4 — TRANS. DIV. COMMANDER-CAPT. J.B. McGOVERN												
ZEILIN (GF)	APA-3	BLT 2/4	129	1609	1738	120	1558	1678	232,511	96,500	965.3	COMDR. T.B. FITZPATRICK
ORMSBY	APA-49	BLT 1/4	91	1465	1556	76	1342	1418	108,654	74,000	740.8	CAPT. L. FRISCO
CLYMER	APA-27	BLT 3/4	98	1389	1487	82	1342	1424	234,232	92,500	925.7	CAPT. M.T. FARRAR
PRES. POLK	AP-103	MISCELLANEOUS	114	1897	2011	114	1897	2011	113,353	91,600	916.0	COMDR. C.T. BALLREICH
VIRGO	AKA-20	UNLOADING DETAIL	14	200	214	5	200	205	314,420	285,000	2850.0	COMDR. C.H. McLAUGHIN
TRANS. DIV.-6 — TRANS. DIV. COMMANDER-CAPT. T.B. BRITTAIN												
FAYETTE (F)	APA-43	BLT 3/22	87	1482	1569	85	1537	1622	167,413	80,400	804.0	COMDR. J.C. LESTER
HARRY LEE	APA-10	9TH DEF. BN.	39	977	1016	49	960	1009	147,656	65,700	657.7	COMDR. J.G. POMEROY
BIDDLE	APA-8	BLT 1/22	50	989	1039	65	979	1044	141,400	82,600	826.4	COMDR. L.E. BROWN
LEEDSTOWN	APA-56	BLT 2/22	65	1498	1563	65	1406	1471	135,812	92,800	928.4	COMDR. H. BYE
CENTAURIS	AKA-17	5TH F.D. – MISC.	5	200	205	10	220	230	232,136	194,400	1944.0	CAPT. G.E. McCABLE
(RESERVE) 77TH INFANTRY DIVISION — TRANS. GRP. COMDR.-CAPT. KNOWLES												
TRANS. DIV.-38 — TRANS. DIV. COMMANDER-CAPT. J.B. HEFFERMAN												
STARLIGHT	AP-175	H&S 305	75	1530	1605	84	1207	1291	83,196	60,019	468.6	
ALPINE	APA-92	BLT 3/305	87	1507	1594	60	1390	1450	169,941	83,760	730.0	
LAMAR	APA-47	BLT 1/305	87	1507	1594	85	1420	1505	169,941	62,995	396.9	
GOLDEN CITY	AP-169	BLT 2/305	70	1550	1620	63	1363	1426	195,584	83,175	774.8	
ALSHAIN	AKA-55	UNLOADING DETAIL	5	200	205	15	158	173	300,000	185,945	2735.5	
TRANS. DIV.-18 — TRANS. DIV. COMMANDER-CAPT. H.B. KNOWLES												
MONROVIA	APA-31	H&S 307	86	1263	1349	112	1231	1343	145,091	63,892	521.7	COMDR. J.D. KELSEY
FUNSTON	APA-89	BLT 2/307	105	1400	1505	142	1727	1869	181,039	60,948	529.5	CAPT. J.E. MURPHY
FELAND	APA-11	BLT 1/307	70	800	870	50	891	941	53,000	30,197	242.6	COMDR. G. JONES
WAR HAWK	AP-168	BLT 3/307	75	1430	1505	89	1624	1713	169,753	51,847	463.2	
CHINA VICTORY	AK-	UNLOADING DETAIL	2	20	22	2	20	22	250,000	239,341	3375.0	
ALCYONE	AKA-7	902 F.A. BN. 706 TANK BN.-MISC.	8	162	170	12	296	308	298,169	165,907	2061.5	COMDR. KNICKERBOCKER
TRANS. DIV.-28 — TRANS. DIV. COMMANDER-CAPT. H.C. FLANNAGAN												
BOLIVAR	APA-34	BLT 1/306	91	1420	1511	91	1551	1642	178,000	97,401	847.0	CAPT. R.P. WADELL
DOYEN	APA-1	306TH F.A. BN.	70	800	870	53	831	884	53,000	27,851	314.4	COMDR. M.C. CLAUGHRY
SHERIDAN	APA-51	BLT 3/306	91	1333	1424	83	1556	1639	163,000	80,357	859.5	COMDR. J.J. MOCKRISH
COMET	AP-166	BLT 2/306	72	1560	1632	75	1583	1658	120,000	56,877	620.2	
CLAREMONT VICT.	AK-	UNLOADING DETAIL	3	17	20	3	17	20	250,000	202,056	2220.7	
ALMAACK	AKA-10	302 ND ENG. BN.- 77TH QM-MISC.	10	150	160	12	162	174	290,000	200,463	2259.2	COMDR. DANNENBERG

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BREAKDOWN OF EQUIPMENT & SUPPLIES — 77th INF. DIV.

GENERAL CARGO (S/TONS)	TRANS. DIV. 38 – RCT 305						TRANS. DIV. 18 – RCT 307						TRANS. DIV. 28 – RCT 306							
	STARLIGHT	ALPINE	LAMAR	GOLDEN CITY	ALSHAIN		MONROVIA	FUNSTON	FELAND	WARHAWK	CHINA VICTORY	ALCYONE	BOLIVAR	DOYEN	SHERIDAN	COMET	CLAREMONT VICTORY	ALMAACK	3 LST's	TOTALS
OFFICERS	84	60	85	63	15		112	142	50	89	2	12	91	53	83	75	3	12	33	1064
ENLISTED	1207	1390	1420	1363	158		1231	1727	891	1624	20	296	1551	831	1556	1583	17	162	579	17606
BARRACKS BAGS (S/TONS)	40.3	48.6	48.6	45.5	7.5		46.1	63.2	30.7	55.6	.7	9.8	53.7	28.7	53.4	53.4	.5	5.4	20.3	612.0
OFFICE EQUIPMENT	6.5	1.0	1.2	.8	.3		3.9	2.0	.8	1.2		1.1	3.6	1.4	.9	2.2		.03	.5	27.4
ORGAN. INITIAL COMBAT EQUIP.	5.1	11.0	9.2	6.1	33.3		3.4	9.0	19.6	32.9	2.7	10.8	10.5	2.6	8.9	8.7				171.1
ORGANIZATIONAL EQUIP.	61.4	17.3	33.2	31.0			98.9	31.4	100	48.9		83.1	51.3	13.9	34.1	42.3	12.5	41.8	8.7	622.5
RATIONS, C, D, K,	.7		1.9	1.9	.3		.8		1.9			.1							1.6	9.2
MESS EQUIPMENT	1.1	4.0	3.1	4.5	18.0		20.5	12.8	7.2	16.2		11.5	16.9	4.3	9.4	12.1	1.1	5.2	3.3	151.2
SPECIAL EQUIPMENT	6.7	14.0	.5	1.2	14.3		35.3	8.8	4.8	20.6	4.2	11.5	7.3	3.7	19.6	11.0	7.1	3.6	5.2	179.4
AMMO SMALL ARMS	7.9	36.9	36.9	37.3	122.8		8.1	17.3		10.0	210.1	153.8	55.5		63.4	50.1		42.9	15.0	868.0
COMMISSARY SUPPLIES					17.5															17.5
CHEMICAL	11.2	14.0	14.0	10.6	67.6		19.9	11.4	4.7	11.4		22.5	13.6		55.2	14.9		11.5		282.5
ENGINEER		9.4	9.4	11.3	84.0			17.0	10.2	17.0	17.5	60.9	2.0		5.6	5.6	204.0	79.7		533.6
MEDICAL	1.8	2.0	1.0	1.0	6.1		1.6	2.0	2.0	2.0		5.0	.9	1.2	.9	.9		2.1		30.5
MOTOR PARTS																				
ORDNANCE	19.8				.5															20.3
QUARTERMASTER GEN. SUPPLIES	12.4	18.8		18.8	18.0				8.3		40.0		15.7			11.1	396.4	15.0		554.5
RATIONS	51.4	87.0	100.2	100.2	13.0		7.7	9.8	4.3	8.6	470.8	1.1	20.9	3.4	45.0	20.0	129.1	64.5	.8	1137.8
SIGNAL	10.1	7.3	11.3	2.0	15.5		30.3	5.5	4.0	4.0	84.8	42.7	5.3	15.9	5.3	5.3		36.0		285.3
HIGH EXPLOSIVES	48.1	101.4	106.8	138.0	918.5		.5	47.9		17.4	456.2	659.8	102.7	118.2	125.2	111.1	20.2	771.3	465.1	4208.4
PYROTECHNICS	.02		.2	.3			5.5	.1	6.2	.1		.3	.1	.2	.1	.1		.3	.2	13.7
PETROLEUM PRODUCTS	13.9	51.1	51.1	49.5	492.4		15.1	34.3	38.2	40.3	165.9	488.4	98.7		127.9	97.1	174.7	427.5	5.4	2371.5
WATER	27.8	42.4	56.3	55.0	134.4		4.9	21.6	3.7	21.6	150.3	147.3	42.1	4.7	82.5	41.2	40.1	190.3	1.8	1068.0
TOTAL WEIGHT OF VEHICLES	141.6	263.9	298.6	255.0	810.0		218.3	234.7	85.3	154.8	1772.2	350.4	345.3	115.6	221.4	132.6	1489.6	561.4	803.0	8253.7
TOTAL WEIGHT OF CARGO	327.0	466.1	485.8	516.6	1965.0		303.4	294.8	157.0	308.4	1602.8	1711.0	301.7	198.8	638.1	487.6	985.7	1697.8	528.5	13176.1
GRAND TOTAL, CARGO & VEHICLES	468.6	730.0	784.4	771.6	2775.0		521.7	529.5	242.6	463.2	3375.0	2061.4	847.0	314.4	859.5	620.2	2475.3	2259.2	1331.5	21429.8
VEHICLES (NUMBER)																				
AIRPLANE, OY's					2												2		2	6
AMBULANCE, 1/4 TON		1	3	4						3	4		4			3				22
DISTILLATION UNIT		1	1								2							2		6
DUKW					8														53*	61
CRANE, T9		1	1	1	1								1		1			1		7
CRANE, M3		2	1	1				1												5
COMPRESSOR, MTR												1	1							2
CRANE, M5											1	1		4						6
HAND CARTS																				
HOWITZER, 75 MM	3							1			2		1		1	1				9
HOWITZER, 105 MM		4	4	4																12
HOWITZER, 155 MM														4			8			12
GUN, 37 MM		3	3	3			3	3		3	3		3		3	3				30
GUN, 40 MM		4	4					4		4					4	4	8			32
TANK, LIGHT											18									18
TANK, MEDIUM					11						22						19			52
M-8					6			2		2	2		2		2	2	6			24
M-10											3									3
TANK, MEDIUM W/B											1									1
HALFTRACK, M3					1						10	1					1			13
HALFTRACK, M4																	1			1
TRAILER, LUBRICATION												1								1
TRAILER, UTILITY												1								1
TRAILER, 1/4 TON	8	13	11	11	2		4	4	8	2		6	7	1	5	2	4		1	89
TRAILER, 1 TON	2		2	1	1		6				4	1	5				8	3		33
TRAILER, WATER	3	1		1	9		1		2	5	2	4	3		1	3	7	5	6	53
TRAILER, ATHEY																	6			6
TRAILER, M-10											4						3		5	12
TRACTOR, D8 W/DOZER					1															1
TRACTOR, D7																				
TRACTOR, R4								1		2		5	3		2	2				15
TRACTOR, R4 W/DOZER	1	3	4	2							2								3	15
TRACTOR, D6 W/DOZER		1	1	1			1	1			1		2		1			2		11
TRACTOR, HC-14			1	1							4	2	2		2			2		14
TRACTOR, M5																	14			14
TRAILER, 1 TON WELDER												1						1		2
TRAILER, GENERATOR											2									2
TRUCK, 1/4 TON, AMPHIBIOUS																				
TRUCK, 1/4 TON	37	34	34	29	16		57	36	27	33	8	7	49	12	33	33	9	14	8	476
TRUCK, 1/2 TON													1							1
TRUCK, 3/4 TON	7	2	2	4	3		11	1	1	6		5	3			1	6	4		56
TRUCK, 3/4 TON C&R		1	1				4					3	1	3					5	18
TRUCK, 3/4 TON WC											1			5				2	5	13
TRUCK, 3/4 TON WC/WW																				
TRUCK, 1 TON																	1			1
TRUCK, 1 1/2 TON	2	1	1	1	4		3	1	1	1	5	1	2		1	1	2			27
TRUCK, 2 1/2 TON DUMP											7	5	1					1		14
TRUCK, 2 1/2 TON CARGO	3	12	12	11	15		6	12	4		13	21	11		6		27	52	21	226
TRUCK, 2 1/2 TON WRECKER					1						1						1	1		4
TRUCK, 2 1/2 TON COMPRESSOR					1															1
REPAIR SHOP													1							1
WINCH, SINGLE DRUM																				
WINCH, SLED MOUNTED			1																	1
WRECKER, 4 TON													1				2	3		6
WRECKER, 10 TON					1						3						1	1		6
TOTAL NUMBER OF VEHICLES	66	84	87	75	83		96	67	43	61	125	66	104	29	62	55	136	94	109	1442

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* 24 DUKWS PRELOADED WITH 105MM HOWITZERS

ANNEX 2
TO ENCLOSURE N
PAGE 7

BREAKDOWN OF EQUIPMENT & SUPPLIES - 3RD MAR. DIV.

DESTROYED

	TRANS. DIV-8 3rd RCT					TRANS. DIV-2 9th RCT					TRANS. DIV-24 21st RCT					LSD	LSD	16 LST's	TOTALS
	CRESCENT CITY	WARREN	WINDSOR	WHARTON	LIBRA	JACKSON PRES.	ADAMS PRES.	HAYES PRES.	MONROE	TITANIA	DUPAGE	ELMORE	WAYNE	RIXEY	AQUARIUS	EPPING FOREST	GUNSTON HALL		
OFFICERS	66	72	55	90	6	70	91	78	119	8	87	68	86	66	12	10	10	133	1127
ENLISTED	1054	1458	1274	1798	155	1433	1395	1341	2000	251	1249	1472	1365	1306	301	150	150	2756	20,508
SEA BAGS	7.4	4.8	13.8	5.8	3.0	1.8		4.4	1.0		1.5								43.5
OFFICE EQUIPMENT	1.3	.2		.1	.2	.8	.3	.2	.4	.1	5.3	.3	.2	.3	.1				9.8
COMBAT EQUIPMENT	66.0	69.4	32.9	53.5	23.4	86.9	27.5	8.7	14.9	56.0	27.0	28.6	21.4	10.1	56.4			585.7	1168.4
SUPPLEMENTARY EQUIP.	16.0	6.1	29.8	3.2	22.8	36.7	16.2	30.7	69.1	33.7	48.2	34.5	69.9	63.5	74.3				553.7
MESS EQUIPMENT	3.5	5.0	5.0	4.7	4.9	8.2	8.9	5.6	2.2	3.2	6.3	9.3	7.4	5.8	8.8				88.8
CAMP EQUIPMENT	10.4	3.2	4.1	2.3	7.0	9.0	3.4	17.4	4.0	5.1	23.8	172.1	8.6	7.2	12.2				134.8
SPECIAL EQUIPMENT	.1	3.9	.2		.5	3.6	31.2	2.2		21.1	75.7	3.0			143.4			953.0	1237.9
AMMO SMALL ARMS	66.0	65.0	65.0	55.0		50.0	50.0	50.0	20.0	80.0	50.0	40.0	50.0	40.0	70.0			167.0	917.0
WATER	.2		29.4		81.0	28.0	30.0			63.0	50.0	50.0	50.0		50.0				506.4
REPLENISHMENTS				.6	151.2	36.5	27.2	36.4	15.2	120.2	1.5		16.1	.4	46.9				452.4
PX SUPPLIES									.5										.5
HIGH EXPLOSIVES	300.0	220.0	230.0	29.0	356.0	242.0	180.0	253.0	36.0	207.7	150.0	120.0	140.0	100.0	190.0			710.0	3463.7
PETROLEUM PRODUCTS	75.0	100.0	125.0	30.0	401.0	175.0	163.0	189.5	66.0	224.1	40.0	40.0	50.0		285.0			125.0	2087.6
PYROTECHNICS	3.0	2.0	2.0	2.0						9.0	20.0	2.0	20.0	2.0					26.0
RATIONS	33.0	97.1	31.0	66.1	214.0	45.1	22.9	96.1	40.0	170.0	32.0	32.0	32.0	32.0	31.0			1315.0	2289.3
TOTAL WEIGHT OF CARGO	654.9	576.7	568.2	252.3	1265.0	723.6	560.6	693.2	269.3	993.2	513.3	376.8	447.6	261.3	968.0			3855.7	12979.8
TOTAL WEIGHT OF VEHICLES	208.5	187.9	127.0	82.1	681.0	255.4	318.1	268.8	224.2	814.8	165.3	218.2	164.2	58.7	603.2	616.0	616.0	4854.0	10463.4
GRAND TOTAL, CARGO & VEHICLES	863.4	764.6	695.2	334.4	1946.0	979.0	878.7	962.0	493.5	1808.0	678.6	595.0	611.8	320.0	1571.2	616.0	616.0	8709.8	23443.2
VEHICLES (NUMBER)																			
AIRPLANE					6														6
AMBULANCES	6	2	3	2		3	1	1	7	6	1	6	5		8			4	55
AIR COMPRESSOR, 105					1			1										7	9
CARTS	18	31	27	29		27	37	27	4	1		40	36	36					313
DISTILLATION UNIT, 250 GAL.															1				1
DISTILLATION UNIT, 1500 GAL.					1													24	25
DIST. UNIT, PORT. 1800-2500 GAL.					5		1								1				7
DUKW																		60	60
GENERATOR							1			8	2	1			1			8	21
GUN, 37 MM		4	4	4				4						4					20
GUN, 75 MM	2	2				1	4				1	2			2				14
GUN, 90 MM							4			4									8
GUN, 20 & 40 MM									24										24
HOWITZER, 75 MM	8	4	4	8															24
LVT (A1)																		41	41
LVT (A4)																			
LVT (2)																		192	192
LVT (4)																			
EARTH AUGER										1									1
CRANE, CRAWLER										1									1
HALF TRACK														1				5	6
TANK, MEDIUM					9											18	18		45
TANK, LIGHT																			
TRACTOR, AIRBORNE											1								1
TRACTOR, TD-9 W/PTO	3	2	2		2	2	1	4	4	1		1			5				27
TRACTOR, TD-9 W/CRANE										1					1				2
TRACTOR, TD-9 W/BLADE	1	1	1	2	2	2	1		1			1	2	1	2			3	20
TRACTOR - TD-18 W/PTO							2	2		12					1				17
TRACTOR - D6 - W/BLADE		1				1						1							3
TRACTOR - D-4																		1	1
TRACTOR - TD-14		1		1			1	2		1		1	1		2			1	11
TRACTOR, HD-14		1					2												3
TRACTOR, HD-10			1					1					1						3
TRACTOR, TD-7 W/W			1							1									2
TRACTOR, HD-7			1	1		2						1			2				7
TRAILER, 1 TON (SCR-299)											1								1
TRAILER, ARC WELDER					2	1	1					3						10	17
TRAILER, 1 TON, 2WH. CARGO	9	3			18	8	3		3	1	3	3	7	1	18			20	97
TRAILER, 1 TON, LUBRICATION					4			1							4			9	18
TRAILER, SEARCHLIGHT										6									6
TRAILER, WATER PURIF						1													1
TRAILER, 3 TON WATER PURIF					2	1		1		3			1		1				9
TRAILER, 1 TON WATER PURIF			1	1	2		2	1		1		1	3		1			6	19
TRAILER, 2 TON, 4WH. STKRM.					2	1				1								5	9
TRAILER, 1 TON, 2WH. STKRM.	1				1	2									2			7	13
TRAILER, 1/4 TON CARGO	1	7	7	6	2	12	8	11	1		5	14	9	8	2			18	111
TRAILER, WATER, 300 GAL.	6	5	5	3	6	6	8	4	6	7	4	8	7		11			20	106
TRAILER, FLATBED, 3 TON																		1	1
TRAILER, SHOWER										1					1				2
TRAILER, 15 TON MACH. SHOP																		2	2
TRAILER, 1 TON LIGHTING																		1	1
TRAILER, 3 TON STOCKROOM						2	2			2									6
TRAILER, 2WH. PE-95																		2	2
TRAILER, 5 TON MACH. SHOP										2								6	8
TRAILER, ATHEY	2	2			2	1	1	3		1		2			4				18
TRAILER, RADAR							1			8								1	10
TRAILER, PONTOON																		18	18
TRAILER, SPECIAL																		1	1
TRAILER, 3 TON DARKRM.																		1	1
TRUCK, 1/4 TON	25	17	8	10	25	22	16	11	13	5	21	18	19	12	23			59	304
TRUCK, 1/4 TON W/RADIO	9	1						4					7	4	7			13	45
TRUCK, 1/2 TON					1				8										9
TRUCK, 3/4 TON	1	1				1						1			1			4	9
TRUCK, 1 TON	20	8	6	6	19	8	6	8		3	15		15	6	17			20	157
TRUCK, 1 1/2 TON SCR	2																	2	4
TRUCK, 2 1/2 TON CARGO	2	4	2		15	9	7	8	9	9	9	5	2		13			75	169
TRUCK, 2 1/2 TON DUMP		1	1		6	2	3	3				3			3				22
TRUCK, 2 1/2 TON WRECKER					1	1			1		1				1			4	9
TRUCK, 4X4 FWD															24				24
TRUCK, RADAR										12								3	15
TRACTOR, CRANE																		15	15
SCRAPER								4		6									10
SHOVEL, GAS										10									10
TOTAL NO OF VEHICLES	116	98	74	73	134	116	113	101	81	115	64	112	115	73	159	18	18	669	2249

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DECLASSIFIED

ANNEX 2
TO ENCLOSURE N
PAGE 5

BREAKDOWN OF EQUIPMENT & SUPPLIES -- 2nd MARINE

	TRANS-DIV-10 RCT 2					TRANS-DIV-18 RCT 8						TRANS-DIV-28 RCT 6							
	CLAY	NEVILLE	MIDDLETON	FELAND	ALHENA	MONROVIA	FUNSTON	CAMBRIA	WAR HAWK	ALCYONE	LINDENWALD	BOLIVAR	DOYEN	SHERIDAN	COMET	ELECTRA	OAK HILL	22 LST.s	TOTALS
OFFICERS	90	55	67	58	9	130	112	138	73	7	11	100	64	112	80	8	10	216	1340
ENLISTED	1629	1373	1420	829	195	1408	1517	957	996	236	151	1244	734	1121	1492	278	149	6382	22311
SEA BAGS (SHORT TONS)	2.0	1.6	2.4	1.2		3.9	2.3	.7	4.0	.5		3.4	2.5	5.8	5.0	.4			35.7
OFFICE EQUIP	1.0	.4	.6	.4		1.2	1.4	.5	2.1	.1		3.9	1.0	.4	1.0	.2			14.2
COMBAT EQUIP	36.5	57.5	17.7	24.4	37.1	35.9	11.2	49.8	20.9	2.7	.3	37.5	16.0	15.1	17.0	59.1	.3	4.4	443.4
SUPPLEMENTARY EQUIP	2.7	3.3	6.5	18.0	387.6	2.3	16.1	8.9	9.1	83.4	12.6	56.4	13.9	53.7	53.0	468.9	12.6		1409.0
MESS EQUIP	.02		.1	.1	60.8	.2	.5	.5	.01	.01		.3	.1	61.1	.6	.01			124.3
CAMP EQUIP	15.5	.1	.9	8.9	90.8	2.1	2.9	1.3	3.0	.7		7.3	1.0	.7	1.1	1.1			137.4
SPECIAL EQUIP	50.4	1.0	50.3	50.0	23.1	56.4	110.3	49.8	214.8				31.5		56.8	23.0			737.4
AMMO SMALL ARMS	33.0	118.5	34.0	36.5		34.0	18.6	26.5	18.6	128.1	.3	24.5	29.1	23.5	21.5	123.4	.3	934	1604.4
AUTOMATIC SUP (LRAS, RATIONS, GAS & OIL)	4.4	4.4	4.4	5.0	57.9	22.6	6.1	5.0	5.0			4.9	5.1	4.4	4.9	37.0			171.1
REPLENISHMENTS	.6				31.2			121.9		117.8						159.1			430.6
PX SUPPLIES	1.0	.8	.9	.6	18.6	1.0	1.3	1.2	1.2	18.6		1.2	.6	1.0	1.0	18.7			67.7
HIGH EXPLOSIVES	40.0	107.5	135.1	35.0	536.6	26.2	50.5	55.1	9.6	614.1		23.6	18.7	36.3	18.0	610.5		506	2822.8
PETROLEUM PRODUCTS	46.0	177.5	66.3	48.0	514.1	60.3	64.9	48.3	64.9	843.8	12.9	66.3	47.9	67.4	67.4	842.3	12.9	350	3601.2
PYROTECHNICS	.3	.3	.3	.3		.3	.3	.3	.3	2.7		.3	.3	.3	.3	2.7			9.0
RATIONS	37.0	31.6	32.6	21.1	346.2	34.4	37.0	36.4	200.9	640.8	2.2	37.4	18.8	33.6	33.3	425.5	2.2	176	2147.0
TOTAL CARGO	270.4	504.5	352.1	249.5	2304.	281	324	406.2	554.4	2453.3	28.3	267	206.5	303.3	280.9	2771.9	28.3	2170.4	13756.0
GRAND TOTAL (TONS) INCL. VEHICLES	461	671	669	319	2847	554	538	593	832	2768	616	467	247	529	460	3370	616	7366	23923.
VEHICLES (NUMBER)																			
AMBULANCES, 1/4 TON	8	2	2	5		2	2	3	2			5	1	2	2			4	40
AIR COMPRESSOR, 105					4											2			6
BOOM ASSEMBLY (SHOVEL)					2														2
CARTS	25	27	36	17	1	51	20	4	20	1		51	1	32	34			72	392
DISTILLATION UNIT	1				5														6
DISTILLATION UNIT, 1500 GAL.		1	1	3				6				2			2	3			18
DIST. UNIT, PORT. 1800-2500 GAL.								4											4
GENERATOR, 10KVA	1				3			1				1				1			7
DRAGLINE					2														2
DUKW							1											30	31
GUN, 37 MM	4	4	4		1			4		1.		4		4	1			16	43
HOWITZER, 75 MM	2		2		1					1					1			24	31
HOWITZER, 105 MM					1					1								24	26
HOWITZER, 155 MM					4					4					1	4			13
LVT (A1)																			
LVT (A4)																		69	69
LVT (2) OR (A)(2)	2		2		2	2	2		2	2		2				4		172	192
LVT (4)																		86	86
TANK, MEDIUM			3								18					1	18		40
TANK, LIGHT										4				4		5			13
TRACTOR, HD-10		1								2		1			1				5
TRACTOR, D-9 W/O BLADE									1										1
TRACTOR, D-9 W/CRANE							2		1			2		2					7
TRACTOR, D-9 W/BLADE	1	1	1		2		3	1					1		2				12
TRACTOR, TD-18	1		1		7					3(2)						2(2)		1	15
TRACTOR, D-6 W/BLADE							1		1			1		2	1				6
TRAILER, 1 TON (SCR-299)						1													1
TRAILER, ARC WELDER		1	1			1			1									3	7
TRAILER, 1 TON, 2 WH, CARGO	3	3	3	2	7	10	9	3	9	2		2	1	2		10			66
TRAILER, 1 TON, LUBRICATION		1	1	1	2	2	1	1	1	1						1			12
TRAILER, ANT. (SCR-270)														1					1
TRAILER, WATER PURIFICATION				1	1					2				1	1				6
TRAILER, 3 TON, WATER PURIF.												3				2			5
TRAILER, 1 TON, WATER PURIF.																2			2
TRAILER, 2 TON, 4WH. STOCKROOM					1				1	1					1	2			6
TRAILER, 1 TON, 2 WH. STOCKROOM		1			2				4							2			9
TRAILER, 1/4 TON CARGO	6	6	6	5		7	3	2	8	2		5	2	9	8	3		7	79
TRAILER, WATER, 300 GAL.	2	2	1	1	1	4	6	14		7		3	2	2	2	1			48
TRAILER, 1/4 TON, W/RADIO									1										1
TRAILER, 1 TON, AIR COMP.		1						1											2
TRAILER, 4WH. AIR COMP.								2											2
TRAILER, 1/4 TON, MACH.					1														1
TRAILER, 1/4 TON, 2WH., STOCKROOM		1																	1
TRAILER, 1 TON, LIGHTING				1		1		1				2							5
TRAILER, 2 TON, 4WH. WELDING					2											1			3
TRAILER, 3 TON, DARKROOM					3														3
TRAILER, 2WH., AE-9.5						1													1
TRAILER, 5 TON, 4WH., MACH. SHOP					1	1				2						2			6
TRAILER, STEAM										1									1
TRAILER, 1/2 TON, RADIO												1							1
TRAILER, 1 TON, W/RADIO POWER U.												1							1
TRUCK, 1 TON, 4X4 W/RADIO									1						1				2
TRUCK, 1/4 TON	12	14	13	10	5	12	16	9	24	2		19	6	10	16	21			189
TRUCK, 1/4 TON W/RADIO	5	2	6	4	5	12	10	7	14	5		10	10	16	9			11	126
TRUCK, 1/2 TON					3					1									4
TRUCK, 1 TON, RECON	7	5	8	7	4	17	23	7	4	1		13	1	5	5	24			131
TRUCK, 1 1/2 TON, SCR						1						1							2
TRUCK, 2 1/2 TON, CARGO	7	8	7		13	10			7	8		1		2	6	7			76
TRUCK, 2 1/2 TON, DUMP					15			5		2		1				3			26
TRUCK, 2 1/2 TON, WRECKER		1				1										1			3
TRUCK, 4X4, FWD					2				12	2						11			27
TRUCK, 1 TON, 4X4, REPAIR								1											1
TRUCK, WATER, 750 GAL.		2																	2
TRUCK, 1/4 TON, WIRE						7		1											8
TRUCK, 1/4 TON SCR						2									1				3
TRUCK, 3/4 TON, W/RADIO																			
TRUCK, PERSONNEL CARRIER					1														1
TRUCK,																			
SLEDS, LARGE												12		12	12				36
SHOVEL, GAS					2														2
WATER PURIFICATION UNIT								2											2
SCRAPER					1														1
ROLLER, TANDEM	1																		1
ROLLER, SHEEPSFOOT																			
CRANES, CRAWLER																			
TRACTOR, DEEP TOW																			
TANK, LIGHT, W/FLAME THR.										4				4		4			12
TANK, MEDIUM, W/ DOZER			1													2			3
HALF TRACK					1	1	2	2						4					10
TOTAL NO OF VEHICLES	88	84	99	57	108	146	101	81	114	62	18	143	25	114	107	121	18	519	2005

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NOTE: TOTAL NO. OF VEHICLES NOT INCLUDING CARTS OR SLEDS — 1577 NOTE 2: NOT INCL D8 DOZER FOR NLF BEACHMASTER

ANNEX 2
TO ENCLOSURE N
PAGE 1

Garrison Personnel Embarked
on FORAGER Assault Ships

1. Corps Ships.

Unit	Personnel
7th Field Depot	1 - 1
31st Field Hosp.	2 - 10
2nd Prov. Port Surg. Hosp.	4 - 33
3rd Prov. Port Surg. Hosp.	4 - 33
AWS #5 (Less dets)	6 - 37
Det.Co "C", 101st Sig Bn.	2 - 9
Mob Comm Unit, CenPac	6 - 57
19th Fighter Sq.	3 - 20
Gropac 8.1	1 - 5
Gropac 8.2	1 - 5
Hq. IsCom TATTERSALLS	8 - 10
Naval Combat Demo. Teams	
TOTAL	38 -220

2. Transgroup Able — 2ND MARINE DIVISION

Unit	Personnel
3rd Plat. 604th QM Graves Regis Co.	1 -- 25
Det AWS #5	3 - 60
18th NC Bn.	25 - 835
726th AW Co.	6 - 79
Is Com TEARAWAY	13 - 12
7th Field Depot	6 - 5
TOTAL	54 1016

3. Transgroup Baker.

Units	Personnel
121st NCB	19 - 804
Det. 7th Field Depot	15 - 204
763rd AW Co.	9 - 40
31st Field Hosp.	20 - 280
539th Port Co.	4 - 226
311th Port Co.	4 - 226
IsCom TEARAWAY	9 - 17
2nd VF Squad.	12 - 269
Det AWS #5	3 - 60
680th AW Co.	8 - 40
Gropac 8	14 - 148
VF (Nite)	6 - 0
TOTAL	123 2514

4. Southern Force

Units	Personnel
2nd Av. Engr.	30 - 525
5th Field Depot	65 - 1300
53rd CB	28 - 800
9th Def. Bn.	24 - 387
14th Def. Bn.	33 - 669
	25 - 698
Corps Unit #41	9 - 88
AW Sq. #2	9 - 57
Argus 17	7 - 40
AW Co. #746	1 - 40
TOTAL	231 - 4604

[redacted]

ANNEX ('4') TO ENCLOSURE (N)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

MANIFEST AND LOADING PLAN

C3A/LI
Serial 0312 24 APRIL 1944

FROM: COMFIFTHPHIBFORPAC

TO :
LST'S PRESENT HAWAIIAN AREA, COMLST FLOT 3, COMLST FLOT 13, COM LST GROUPS 7, 8, 9, 14, 37, 39, COMGEN 5TH PHIBCORPS, COMGEN 2ND MARDIV, CG 4TH MARDIV, CG 27TH DIVISION, FREIGHT DIVISION NSD PH, COMDT NYPH, COMGROUP 2 5TH PHIB, CINCPAC

1. WHEN DIRECTED BY ADCOM5THPHIB, DESIGNATED LST'S PROCEED TO BERTH K-12 PEARL HARBOR AND LOAD AMMUNITION AND SUPPLIES AS ITEMIZED IN THE MANIFEST, ENCLOSURE "A". GASOLINE WILL BE STOWED ON THE WEATHER DECK AS INDICATED IN ENCLOSURE "B", OTHER SUPPLIES ON THE TANK DECK AS INDICATED IN ENCLOSURE "C". ALL LOADING WILL BE DONE OVER THE RAMP. LABOR, EQUIPMENT, AND DUNNAGE AS REQUIRED WILL BE FURNISHED BY NAVY FREIGHT OFFICE, BLDG. 474, PEARL HARBOR.

2. WHERE PRACTICABLE LST'S WILL BE ORDERED TO MOVE TO THE DOCK AT DAYLIGHT AND WILL MOVE FROM THE DOCK TO BUOYS IN WEST LOCH IN THE LATE AFTERNOON OF THE NEXT DAY.

/s/ H. B. STARK,
Lieutenant Commander, USN.,
Flag Secretary.

ANNEX (4) TO ENCLOSURE (N)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

LIST OF AMMUNITION TO BE LOADED IN DESIGNATED LSTs

	Article	Rounds	Boxes	Cube	Weight	Boxes	Boxes	Boxes
1.	.30 Cal. Carbine	30,000	10	10	1,000	50	100	340
2.	.30 Cal. Ball (5-Rd)	36,000	24	36	2,640	120	240	816
3.	.30 Cal. Ball (8-Rd)	42,320	30	46	2,880	150	300	1,020
4.	.30 Cal. Tracer	15,000	10	15	1,110	50	100	340
5.	.30 Cal. & Tracer (Belted 4 & 1)	792,500	634	951	60,864	3,170	6,340	21,556
6.	.45 Cal. Ball	4,000	2	2	220	10	20	68
7.	.50 Cal. A.P.	52,500	150	225	16,950	750	1,500	5,100
8.	.50 Cal. Tracer	17,500	50	75	5,000	250	500	1,700
9.	.50 Cal. Links	70,000	70	91	3,570	350	700	2,380
10.	Grenade, Hand, Frag.MkIII	200	48	60	2,448	240	480	1,032
11.	Grenade, Hand, Offensive MkIII	400	8	10	434	40	80	272
12.	Fuse, M6A3	400	2	6	144	10	20	68
	(Substitute Frag Grenades if offensive not available)							
13.	Grenade, Incendiary, M14	300	12	14	744	60	120	408
14.	Grenade, Smoke, M8	100	4	6	280	20	40	136
15.	Grenade, HE, At, M9A1	600	60	60	1,860	300	600	2,040
16.	Rocket, M6A1, 2.36"	200	10	36	1,360	50	100	340
17.	60mm Mortar, HE, M49A2	1,260	70	174	5,670	350	700	2,380
18.	60mm Mortar, Illum, M83	144	8	32	1,056	40	80	272
19.	81mm Mortar, HE, M43A1	222	37	39	2,146	185	370	1,258
20.	81mm Mortar, HE, M56	180	60	54	2,520	300	600	2,040
21.	81mm Mortar, WP, M57	42	14	12	588	70	140	476
22.	37mm Gun, AP, M74	1,200	60	120	6,000	300	600	2,040
23.	37mm Gun, HE, M63	1,200	60	120	5,460	300	600	2,040
24.	37mm Gun, Canister, M2	600	30	60	3,060	150	300	1,020
25.	75mm How. AP, M61	231	77	79	5,390	385	770	2,618
26.	75mm How. HE, M48/48(SC)	177	59	61	4,130	295	590	2,006
27.	75mm HOW. WP, MkII	51	17	18	1,020	85	170	578
28.	Fuse, P.D., M46	50	1	1	54	5	10	34
29.	TNT., lbs.	500	10	22	520	50	100	340
30.	C-2, lbs.	500	10	12	580	50	100	340
31.	Caps, blasting, non-elecl.	000	1	1	40	5	10	34
32.	Fuse, blasting, time, feet.	000	1	4	60	5	10	34
33.	Torpedo, bangalore, Ml.	200	20	64	2,280	100	200	680
				2,504	142,068 (71 Ton)	....TOTAL		

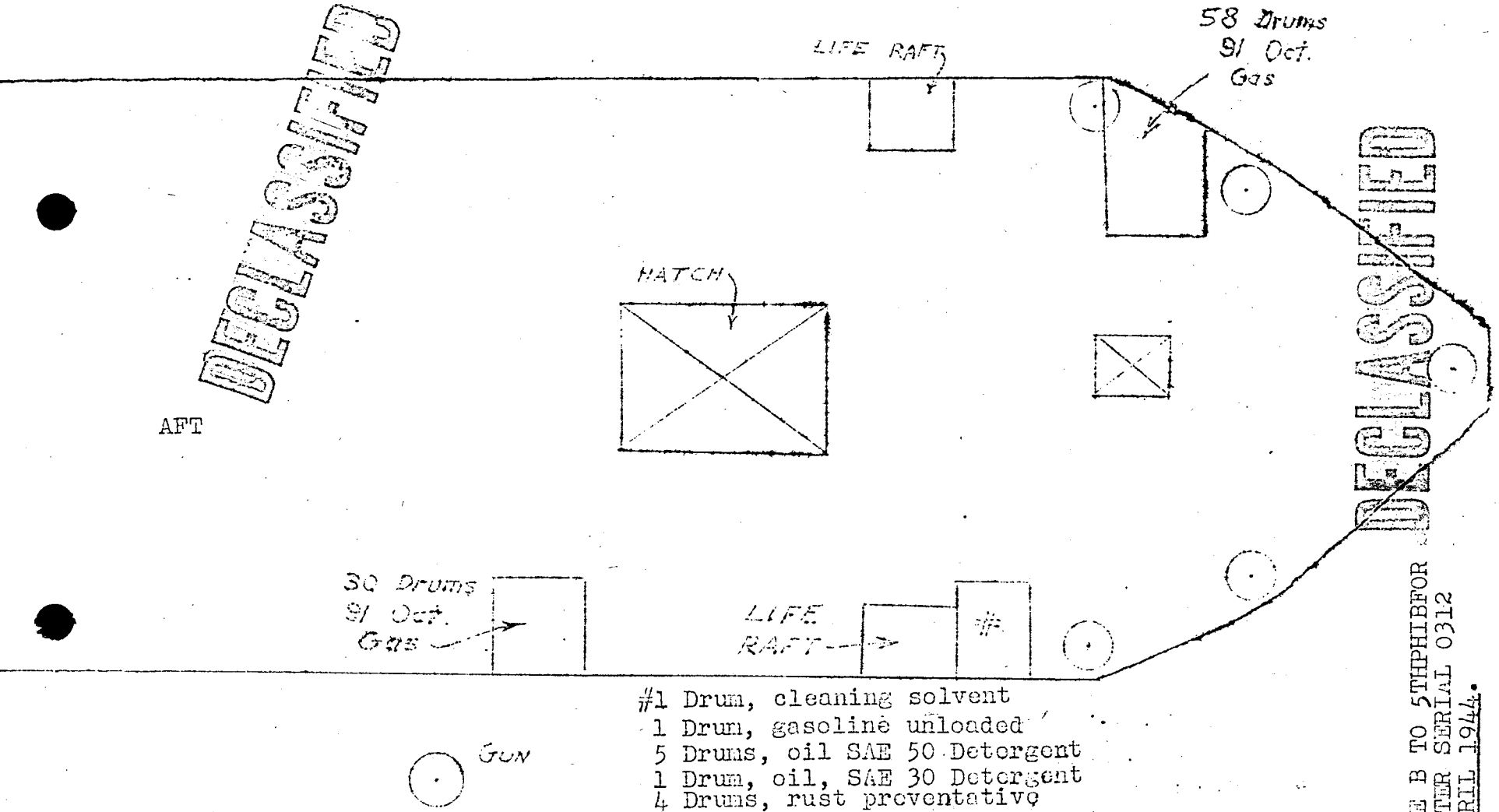
NOTE: Above figures include four (4) U/F for infantry troops: seven (7) U/F for LVT(2)s and LVT (A)(1)s (37mm Guns) and two (2) U/F for 75mm Tank Guns. Pyrotechnics, additional demolitions and flame throwers supplies will be loaded by the Division.

ANNEX (4) TO ENCLOSURE (N)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

LIST OF SUPPLIES OTHER THAN AMMUNITION TO BE LOADED ON DESIGNATED LST's

EACH LST .

ITEM	QUANTITY	BBLS CASES ECT.	WT.	CU.FT.
Emergency Rations				
"C" Rations	2 Days	100	4500	100
"D" Rations	3 Days	27	1080	27
"K" Rations	3 Days	100	2800	138
TOTAL	8 Days	227	8380	265
Water (5 gal cans)		400	22000	360
Petroleum				
Gasoline, 91 Oct.		88	44000	880
Cleaning Solvent		1	500	11
Gasoline, Unleaded		1	500	11
Oil, (SAE 50, Detergent)		5	2500	55
Oil, (SAE 30, Detergent)		1	500	11
Grease #2 Type (cans)		8	272	8
Rust Preventative (drums)		4	2000	44
Salt Water Soap		2	100	2
LVT Maintenance				
Distilled Water (5-gallon can)				
Empty five gal. cans		150		
Rags (2 Bales)				
Paint (gals)		25		

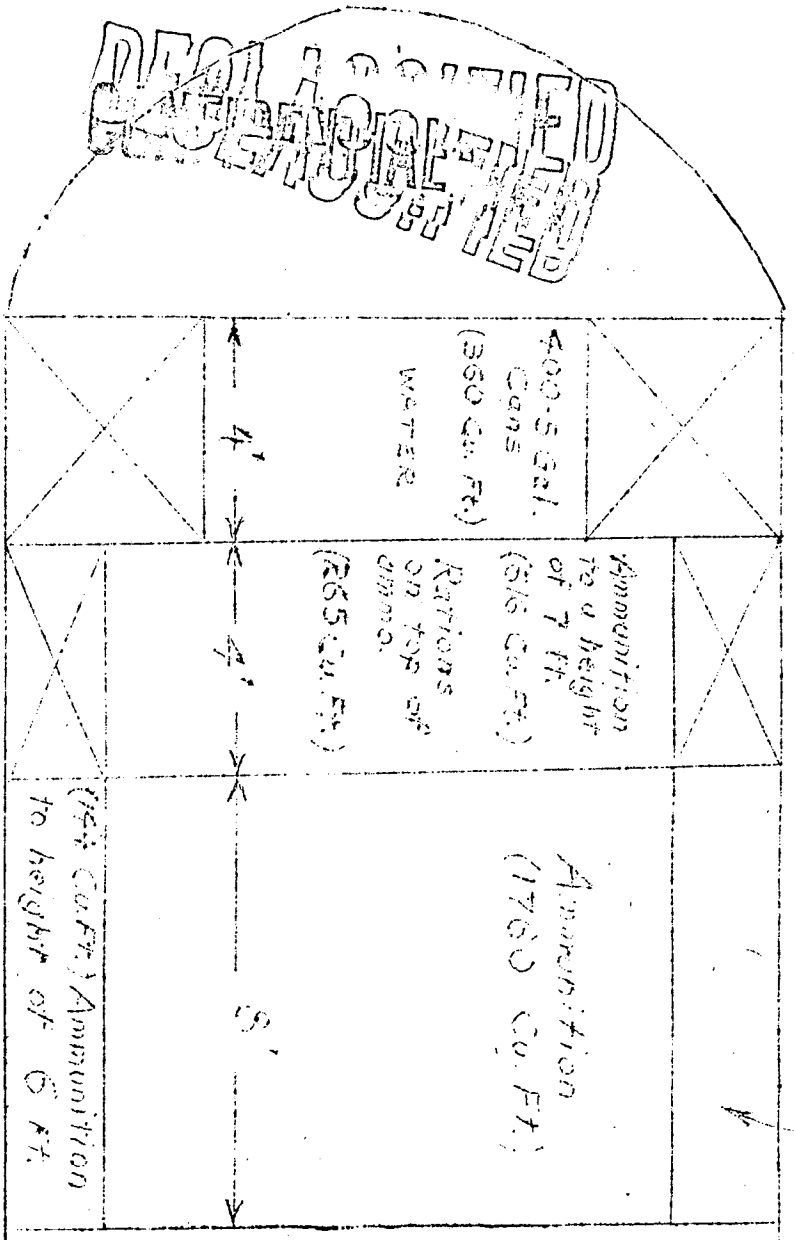


#1 Drum, cleaning solvent
1 Drum, gasoline unloaded
5 Drums, oil SAE 50 Detergent
1 Drum, oil, SAE 30 Detergent
4 Drums, rust preventative
150 Empty 5 gallon cans
8 Cans #2 grease

WEATHER DECK (CARGO TO BE LOADED PEARL HARBOR)

ENCLOSURE B TO 5THPHIBFOR
SPEEDLETTER SERIAL 0312
OF 24 APRIL 1944.

ANNEX (4) to ENCLOSURE (N)



TANK DECK

(CARGO TO BE LOADED PEARL HARBOR)

ANNEX (5) TO ENCLOSURE (N)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

FORAGER LST LOADING SCHEDULE

SPEED LETTER SPEED LETTER

C5A/L1
Serial 00504 [redacted] 26 APRIL 1944

FROM:
COMFIFTHPHIB

TO :
CINCPAC, COMCENPAC, COMGENCENPAC, COMSERVPAC, COMAIRPAC, CG FIFTHPHIBCORPS, ADCOM FIFTHPHIB, CG 2ND, 4TH MARDIVS; CG 27TH DIV, COMLST FLOTS 3, 13; COMLST GROUPS 7,8,9,37, 39; COMHAWSEAFRON, COMDT NYPH, COM14, CARGO AND PASSENGER CONTROL HONOLULU, FREIGHT DIV NSD PH, ALL LST'S PRESENT IN HAWAIIAN AREA, COMGROUPS 1,2,3 FIFTHPHIB; COMTHIRDPHIB, COMPHIBTRAPAC, CO 10TH, 773RD, 2ND, 715TH, 5TH AMPHIBIAN TRACTOR BATTALIONS, CO FIRST AND SECOND MARINE DUKW CO, CO 708TH, 2ND AMPHIBIAN TANK BATTALION, ADVANCE BASE TRANSSHIPMENT DEPOT IROQUOIS POINT.

FORAGER LST LOADING SCHEDULE

1. FORAGER LST'S WILL LOAD CARGO AND TROOPS IN HAWAIIAN AREA AS HEREINAFTER DIRECTED.

2. A TOTAL OF FORTY-FIVE FORAGER LST'S, SERIAL NOS 1-45, ARE ASSIGNED TO TRACTOR GROUPS AND CARRY AMPHIBIAN TRACTORS, AMPHIBIAN TANKS, OR DUKW'S, OF THIS NUMBER, THIRTY-FIVE LST'S WILL EACH CARRY ONE LCT ON THE TOP DECK, SIX WILL SIDE-CARRY PONTOON CAUSEWAYS, AND FOUR WILL CARRY PONTOON BARGES ON THE TOP DECK.

3. THREE TYPES OF STANDARD CARGO LOADINGS ARE PRESCRIBED. "LOAD ONE" IS THE LST LOADING PRESCRIBED BY COMFIFTHPHIB SERIAL 0312 OF APRIL 24, 1944. "LOAD TWO" IS A TANK DECK LOAD FOR LST'S CARRYING DUKW COMPANIES. "LOAD THREE" IS A TOP DECK LOAD FOR SHIPS WHICH HAVE PREVIOUSLY HAD "LOAD ONE" BUT HAVE NO LCT OR BARGE ON THE TOP DECK. LOADING PLANS FOR LOADS TWO AND THREE WILL BE MADE BY THE SECOND AND FOURTH MARDIVS AND THE 27TH DIVISION SUBMITTED FOR APPROVAL TO COMFIFTHPHIB. THIRTY LST'S OF THE FORTY-FIVE ASSIGNED TO THE TRACTOR GROUPS WILL CARRY "LOAD ONE". ELEVEN OTHER LST'S OF THE FORTY-FIVE WILL CARRY "LOAD TWO". THE REMAINING FOUR LST'S OF THE FORTY-FIVE WILL CARRY "LOAD ONE" AND "LOAD THREE". LCT, LVT, DUKW, PONTOON LOADINGS AND TROOP

C5A/L1
Serial 00504 [redacted] APRIL 26, 1944

EMBARKATIONS WILL BE IN ADDITION TO THE CARGO LOADINGS MENTIONED, AS SHOWN IN THE TABLE.

2. DUE TO THE UNCERTAINTY OF READINESS DATES OF INDIVIDUAL LST'S, LOADING SERIAL NUMBERS HAVE BEEN USED IN THIS LOADING SCHEDULE. LST'S WILL BE ASSIGNED LOADING SERIAL NUMBERS AS SOON AS PRACTICABLE.

5. ALL "LOAD ONE" LOADINGS WILL BE MADE AT BERTH K-12 AT PEARL HARBOR AS SEPARATELY DIRECTED BY COMFIFTHPHIB; OTHER LOADS AS INDICATED IN THE TABLE.

6. A TOTAL OF TWELVE FORAGER LST'S, SERIAL NUMBERS 46 to 57, INCLUSIVE, WILL BE LOADED IN ACCORDANCE WITH INSTRUCTIONS CONTAINED IN COMPHIBSPAC CIRCULAR LETTER AL15-44.

7. ALL MOVEMENTS TO CONFORM TO THIS LOADING SCHEDULE WILL BE AS DIRECTED BY THE ADMINISTRATIVE COMMANDER, FIFTHPHIB.

8. THE SENIOR OFFICER IN EACH GROUP OF LST'S ASSIGNED TO EMBARK LVT'S OR TROOPS ON THE SAME DAY AND IN THE SAME AREA WILL MAKE OWN ARRANGEMENTS DIRECT WITH TROOP COMMANDERS CONCERNED TO INSURE AN ORDERLY AND EXPEDITIOUS EMBARKATION.

TENTH AMPHIBIAN TRACTOR BATTALION

LST LOADING SER. NO.	SPECIAL LOAD	STANDARD LOAD NUMBER	EMBARK TRACTORS	EMBARK TROOPS	MOVEMENT SCHEDULE
1	LCT	LOAD #1	MAALAEA BAY 5/11-5/12 INCL	MAALAEA BAY 5/13 BY SHIP BOAT	DEP. PEARL PM 5/10 PROCEED MAALAEA BAY TO ARRIVE AM 5/11. DEPART MAALAEA 5/14 FOR REHEARSAL.
2	LCT	"	"	"	
3	LCT	"	"	"	
4	LCT	"	"	"	
5	LCT	"	"	"	

C5A/I1
Serial 00504 [redacted] 26 APRIL 1944

TENTH AMPHIBIAN TRACTOR BATTALION (Cont'd)

LST LOADING SER. NO.	SPECIAL LOAD	STANDARD LOAD NUMBER	EMBARK TRACTORS	EMBARK TROOPS	MOVEMENT SCHEDULE
6	CAUSEWAY	LOAD #1 ---- LOAD #3 KAHULUI 5/8-5/10	MAALAEA BAY 5/11-5/12 INCL.	MAALAEA BAY 5/13 BY SHIPS BOATS	DEPART PEARL PM 5/7. PROCEED KAHULUI TO ARRIVE AM 5/8. DEPART KAHULUI AM 5/11 PROCEED MAALAEA BAY TO ARRIVE PM 5/11. DEPART MAALAEA 5/14 FOR REHEARSAL.

SECOND MARINE DUKW COMPANY

7	LCT	LOAD #2 PLUS DUKWS KAHULUI 5/11-5/13 INCL	NONE	KAHULUI 5/13	DEPART PEARL PM 5/10 IN COMPANY WITH SER. NOS, 1-5 INC. PROCEED KAHULUI TO ARRIVE AM 5/11. DEPART KAHULUI PM 5/13 PROCEED MAALAEA BAY TO ARRIVE AM 5/14. DEPART MAALAEA BAY 5/14 FOR REHEARSAL.
8	LCT	"	"	"	
9	LCT	"	"	"	
10	CAUSEWAY	"	"	"	

708TH AMPHIBIAN TANK BATTALION

11	LCT	LOAD #1	KOKO HEAD 5/11	MAALAEA BAY 5/15 BY SHIP BOATS	DEP. PEARL AM 5/11. PROCEED KOKO HEAD. DEPART KOKO HEAD PM 5/11 PROCEED MAALAEA BAY TO ARRIVE AM 5/12. DEPART MAALAEA 5/14 FOR REHEARSAL
12	LCT	"	"		
13	LCT	"	"		
14	PONTOON BARGE	"			

C5A/L1
Serial 00504 [redacted] APRIL 26, 1944

773RD AMPHIBIAN TRACTOR BATTALION

LST LOADING SER. NO.	SPECIAL LOAD	STANDARD LOAD NO.	EMBARK TRACTORS	EMBARK TROOPS	MOVEMENT SCHEDULE.
15	LCT	LOAD #1	KOKO HEAD 5/12	MAALAEA BAY: 5/13 BY SHIP BOATS	DEPART PEARL AM 5/12. PROCEED KOKO HEAD PM 5/12 PROCEED MAALAEA BAY TO ARRIVE AM 5/14 FOR REHEARSAL. 5/13 DEPART MAALAEA 5/14 FOR REHEARSAL.
16	LCT	"	"	"	
17	LCT	"	"	"	
18	LCT	"	"	"	
19	LCT	"	"	"	
20	CAUSE WAY	LOAD #1 ---- LOAD #3 KAHULUI 5/8-5/10 INCL	KOKO HEAD 5/7	MAALAEA BAY: 5/13 BY SHIP BOATS	DEPART PEARL AM 5/7. PROCEED KOKO HEAD. DEPART KOKO HEAD PM 5/7 PROCEED KAHULUI TO ARRIVE PM 5/8. DEPART KAHULUI AM 5/11 PROCEED MAALAEA BAY. DEPART MAALAEA AM 5/14 FOR REHEARSAL.

SECOND AMPHIBIAN TRACTOR BATTALION

21	LCT	LOAD #1	HAPUNA BAY	HAPUNA BAY	DEPART PEARL AM 5/10 PROCEED HAPUNA BAT TO ARRIVE AM 5/11. DEPART HAPUNA BAY 5/14 FOR REHEARSAL.
22	LCT	"	5/11-5/12 INCL	5/13 BY SHIP BOATS	
23	LCT	"	"	"	
24	LCT	"	"	"	
25	LCT	"	"	"	

C5A/L1
Serial 00504 [redacted] 26 APRIL 1944

SECOND AMPHIBIAN TRACTOR BATTALION (Cont'd)

LST LOADING SER. NO.	SPECIAL LOAD	STANDARD LOAD NO.	EMBARK TRACTORS	EMBARK TROOPS	MOVEMENT SCHEDULE
26	CAUSEWAY	LOAD #1 --- LOAD #3 HILO 5/8-5/10 INCL.	HAPUNA BAY 5/11-5/12 INCL.	HAPUNA BAY 5/13 BY SHIPS BOATS	DEPART PEARL AM 5/7 PROCEED HILO TO ARRIVE AM 5/8. DEPART HILO AM 5/11 PROCEED HAPUNA BAY TO ARRIVE PM 5/11. DEPART HAPU BAY 5/14 FOR REHEAR

FIRST MARINE DUKW COMPANY

27	LCT	LOAD #2 PLUS DUKWS HILO 5/11-5/13 INCL.	NONE	HILO 5/13	DEPART PEARL AM 5/10 IN COMPANY WITH SER NOS. 21-25 INCL. PROCEED HILO TO ARRIVE AM 5/11. DEPART HILO PM 5/13 PROCEED HAPUNA BAY TO ARRIVE AM 5/14. DEPART HAPUNA BAY 5/14 FOR REHEARSAL
28	LCT	"	"	"	
29	LCT	"	"	"	
30	CAUSEWAY		"	"	

715TH AMPHIBIAN TRACTOR BATTALION

31	LCT	LOAD #1	KOKO HEAD 5/13	MAALAEA BAY 5/15 BY SHIP BOATS	DEPART PEARL AM 5/13. PROCEED KOKO HEAD. DEPART KOKO HEAD 5/14 FOR REHEARSAL.
32	LCT	"	"	"	
33	LCT	"	"	"	
34	LCT	"	"		
35	PONTOON BARGE	"	"		

ANNEX (5) TO ENCLOSURE (N)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

C5A/L1
Serial 00504 [redacted] 26 April 1944

715TH AMPHIBIAN TRACTOR BATTALION (CONTD)

LST LOADING SER NO.	SPECIAL LOAD	STANDARD LOAD NO.	EMBARK TRACTORS	EMBARK TROOPS	MOVEMENT SCHEDULE
36	CAUSEWAY	LOAD #1 ------- LOAD#3 HILO 5/8-5/10 INCL	KOKO HEAD 3/6	HAPUNA BAY 5/13 BY SHIPS BOAT	DEPART PERAL AM 5/6, PROCEED KOKO HEAD. DEPART KOKO HEAD AM 5/7 PROCEED HILO TO ARRIVE AM 5/8. DEPART HILO AM 5/11 PROCEED HAPUNA BAY TO ARRIVE PM 5/11. DEPART HAPUNA BAY 5/14 FOR REHEARSAL

FIFTH AMPHIBIAN TRACTOR BATTALION

37	LCT	LOAD #1 BERTH K-12 PEARL 5/12&5/13	PEARL-BERTH K-12, 5/13	MAALAEA BAY 5/15	DEPART PEARL AM 5/14 FOR REHEARSAL.
38	PONTOON BARGE				

SECOND AMPHIBIAN TANK BATTALION

39	LCT	LOAD #1	MAALAEA BAY 5/13	MAALAEA BAY 5/15 BY SHIPS BOAT	DEPART PEARL PM 5/12, PROCEED MAALAEA BAY TO ARRIVE AM 5/13. DEPART MAALAEA BAY 5/14 FOR REHEARSAL.
40	LCT	"	"		
41	LCT	"	"	"	
42	PONTOON BARGE	"	"	"	

27TH DIVISION DUKW COMPANY

43	LCT	LOAD #2 PLUS DUKW'S K-12 5/15-5/18 INCL.	NONE	WALKER BAY 5/23	-------
44	LCT		"	"	
45	LCT				

[redacted]

ANNEX (5) TO ENCLOSURE (N)

COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

C5A/L1
Serial 00504 [redacted] 26 APRIL 1944

FIFTHPHIB CORPS ARTILLERY

LST LOADING SER. NO.	SPECIAL LOAD	STANDARD LOAD NO.	EMBARK TRACTORS	EMBARK TROOPS	MOVEMENT SCHEDULE
46	CAUSEWAY	BERTH K-12 PEARL 5/15-5/18 DUKW ARTILLERY SUPPLIES	NONE	WALKER BAY 5/23	--------
47	"			"	

ARMY DEFENSE BATTALIONS

48	CAUSEWAY	BERTH K-12 PEARL 5/19-5/25 INCL.	NONE	BERTH K-12 5/26	--------
49	"		"	"	

NORTHERN GARRISON FORCE

50	CAUSEWAY	BERTH K-12 PEARL 5/19-5/25 INCL.	NONE	BERTH K-12 5/26	--------
51	PONTOON BARGE		"	"	
52	"	"	"	"	

SOUTHERN GARRISON FORCE

53	LCT	IROQUOIS POINT 5/18-5/25 INCL.	NONE	IROQUOIS 5/26	--------
54	LCT		"		
55	LCT		"	"	
56	LCT		"	"	
57	LCT	"	"	"	

/s/ H. B. STARK,
Lieutenant Commander, USN.,
Flag Secretary.

[redacted]

Joint Expeditionary Force (TF 51)
Office of the Commander,
U.S.S. ROCKY MOUNT, Flagship,
August 25, 1944.

ENCLOSURE (O)
COMMANDER JOINT EXPEDITIONARY FORCE REPORT OF FORAGER OPERATION

IMPORTANT RECOMMENDATIONS

INTELLIGENCE

1. That the grid system used in the FLINTLOCK and FORAGER Operations be adopted as a standard for the use of all naval, air, and ground forces involved in future operations in the Pacific, and that the method of target area designation be retained. This is particularly important in areas where operations of separate forces may overlap.

2. That intelligence maps be published at a scale of 1:20,000 as was done in FORAGER for the dissemination of the latest intelligence information. These maps should be printed on sheets the size of the lithographic presses on board the AGC's in order that overprints, showing last minute information of enemy installations located or destroyed, may be made in the theatre of operations.

3. That the number of Japanese language officers be increased over the two now assigned temporarily to the staffs of Amphibious Force and Group Commanders. The work load of translating important documents, interviewing prisoners, and forming administrative agencies for civilians, is very large, and, as yet, has not been coped with. The numbers assigned should be sufficient to provide for the needs of the Garrison Forces and for the assignment of at least one officer to each ship designated to transport prisoners of war. A pool of about 500 Japanese language experts should be provided for the larger problems of the future.

4. That further drastic action be taken to stamp out the pernicious practice of souvenier hunting.

OPERATION OF CONTROL, BEACH, AND SHORE PARTIES

5. That the control craft required to land three Corps in assault be permanently assigned to the Amphibious Force, U.S. Pacific Fleet. These vessels should be modified to accommodate the necessary control personnel and the additional radio equipment to permit them to operate effectively in landing control. These assignments should be made at an early date to permit proper conversion and subsequent training in their specialized duties. Detailed recommendation as to number and type will be submitted in

separate correspondence. This Force will arrange for their training.

6. The most experienced personnel obtainable should be used in the Control Parties for assault landings; they should be professionals. It is therefore recommended that in so far as practicable, permanency be attained in the assignment of personnel to Control Vessels and to control duties on Amphibious Force staffs. Specific recommendations will be made relative to these latter assignments in separate correspondence.

COMMENTS ON OPERATION OF AMPHIBIOUS VESSELS AND VEHICLES

7. That LCT Flotilla Commanders be assigned a control type craft, PCS or SC, for use as a flotilla flag. This vessel to be provided the radio equipment and personnel necessary for service as a control vessel.

8. Provision of one SCR 610 as standard equipment for LCT's, and instruction of members of the crew in its operation and upkeep during the training period.

OPERATION OF PONTOON BARGES AND CAUSEWAYS

9. The number of pontoon barges and causeways to be used in future operations should be limited only by the facilities available for transporting them.

10. One vessel, assigned to landing craft repair, should be designated as repair ship for pontoon barges. This ship should carry spare engines, necessary engine operating spares, and fittings for barges. Personnel should be trained in the repair of engines installed in pontoon barges. In the forward area, it is important that many vessels be available for repair work.

NAVAL AND AIR BOMBARDMENTS

11. That four observation planes per cruiser be provided on all heavy and light cruisers. That 25% spare planes be provided in advanced area. Four planes were lost in FORAGER from 28 in use. Others were sufficiently damaged to be in need of replacement.

12. That main reliance be placed on napalm - gasoline bombs for incendiary purposes. That WP projectiles be used only for ignition of the most readily inflammable materials, for smoke screens and for anti-personnel use in confined spaces.

13. That plans be made for supplying the maximum amount of reserve ammunition at the objective in assault ships and one or two AE's at a time. These AE's should be experienced, stowed for rapid discharge, equipped with the fastest handling gear available, carry camels and plenty of fenders, and have stevedore crews attached while in combat areas.

14. That ships' batteries be employed to knock out point targets of only the most important and menacing character. Otherwise, enormous ammunition expenditures are incurred.

UNDERWATER DEMOLITION TEAMS

15. A sufficient number of Underwater Demolition Teams should be procured to provide for a rehabilitation period between operations, and permit the training of personnel with new equipment, as developed, and in new operating procedures. Recommendations will be submitted as to the total number of teams required as the scope of operations becomes known.

16. The provision of boats for UDT's which will combine the characteristics of shallow draft, low silhouette, good speed and maneuverability, quietness and protection for the crew.

17. That DE's converted to APD's be assigned for Underwater Demolition Team operation and that they be altered to provide the proper proportion of living quarters for officer and enlisted personnel, adequate storage for explosives carried in assault and for the transportation of special landing craft as developed for Underwater Demolition Team work.

PROTECTIVE SMOKE COVER

18. That during amphibious operations, a reserve supply of at least the following amount of smoke equipment be established at an advanced base near the objective:

60,000 gallons fog oil
9,000 gallons M4 floats
3,000 Mk 3 pots

(a) Based on an average of thirty ships, it is estimated that the above equipment will provide smoke for twenty hours.

SUPPORT AIRCRAFT

19. A number of CVE Squadrons should be specifically trained for Support Air operations, the number to be determined by the availability of carriers, squadrons and plans for future operations.

20. Intensive training in smoke laying and photographic missions be given to a few selected pilots from each CVE scheduled for employment in any amphibious operation and careful attention given to the equipment to assure proper functioning and improved technique.

21. The rehearsal of an amphibious operation should include, in so far as practicable, participation of the Air Groups scheduled to take part in the prospective operation. Upon completion of the rehearsal, a critique should be scheduled to correct deficiencies shown during the rehearsal and to cover a final briefing of important features in the prospective operation.

22. Consideration be given to providing a Naval Aviation representative with a small number of key aviation maintenance and communication personnel and equipment to set up headquarters at the first airfield captured to function as liaison and as an emergency repair unit ashore for Naval Aircraft during the assault phase.

23. The composition of the control party and the equipment required by the Landing Force Commander Support Aircraft be given further study.

24. Further study be made to improve the method of marking targets and front line positions.

25. A High Frequency (HF) or Medium High Frequency (MHF) with transmitter of sufficient power be employed by all Forces throughout the Pacific area for the Inter-Fighter Director Net. This is desirable due to the extensive use of Radar Picket vessels and the necessity for an Inter-Force Inter-Fighter Director circuit separated from the General Warning Net.

COMMUNICATIONS

26. That tender supply and maintenance ships for electronic equipment be provided to service forces in the forward area; and that until they are available additional stocks of spare parts be provided in ships present and well distributed in forward areas.

27. That the development of teams of radar guardships be adopted as a standard principle to provide screening in depth.

28. That SP radars be provided for headquarters ships as soon as possible.

29. That renewed effort be directed toward improving the ability of ships to detect and track low flying aircraft.

MEDICAL REPORT

30. That the medical personnel of APA's be augmented by one or more medical officers and eight corpsmen from garrison force personnel. These personnel should be retained at the objective on departure of the transports.

31. That the medical allowance of strategic items be increased on AGC's so that these vessels, which remain a long time at the objectives, may act as sources of emergency supply both for ships and for landing force medical organizations.

32. That as soon as air evacuation is established at the objective, a flight surgeon with adequate medical attendants be provided to supervise air evacuation.

33. That all hospital ships moving into the forward area carry their full allowance of medical field equipment, augmented by the number of tents and cots required for operations at the objective, and that the Garrison Force medical personnel assigned to the field hospital be transported in the hospital ships and utilized to augment medical units afloat until they can be landed.

LOGISTICS

34. That steps be taken to solve the problems of replenishment of provisions by adopting the following measures:

(a) The number of refrigerated provision ships in the Pacific Area be augmented to the point where at least two, and preferably three, are available to follow the assault forces and, by a rotation system, keep them supplied with frozen, and, if possible, fresh provisions for a period of several months.

(b) Serious attention be given at the earliest possible moment to a study of the present "balanced" issue of dry

stores, with an eye to revising the list in favor of much higher percentages of canned fruits, fruit juices, vegetables, dehydrated potatoes, and other items which may be substituted for fresh and frozen provisions.

35. A water tanker be brought forward closely following the assault phase to meet the constant demands from non self-supporting craft and merchant vessels of garrison groups which have heretofore been filled from limited and diminishing reserve in the assault shipping. This service to be supplemented by additional water tankers or self-propelled barges until adequate sources of supply have been developed ashore.

36. That the supply of lube oils carried by tankers be re-examined in order that only those oils required at the objective will be transported and that maximum quantities be loaded; all ships proceeding to the combat zone see lubricating oil systems filled with oil in good condition and reserve storages filled to capacity and that sufficient lube oil to support the operation of those ships which require frequent renewals is transported in early echelon ships.

SHIP LOADING

37. The system of standard loads for LST's be continued in effect. Combination of standard loads constitutes combat unit loading for the assault troops and artillery battalions which land in the LVT's and DUKW's transported in LST's. These loadings must be carefully planned to provide for the combat needs of troops and artillery.

38. That the troops which will land in the LVT's and man the batteries preloaded in DUKW's, which are carried in LST's, be transported to the objective in these LST's. This brings the troops, their water transportation and the supplies necessary to support them in the early stages of the assault from embarkation point directly to the Line of Departure.

39. That resupply vessels be loaded for selective discharge instead of using the system of "block loading". No advantage in this method was noted. There is a definite advantage in being able to get your hands on what is needed in the required quantity.